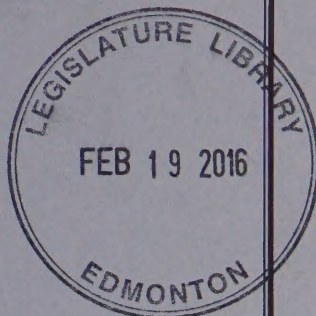


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## ANNUAL REPORT

OF THE

# Department of Public Health

PROVINCE OF ALBERTA

1959

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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EDMONTON:

PRINTED BY L. S. WALL, QUEEN'S PRINTER

1961





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# Department of Public Health

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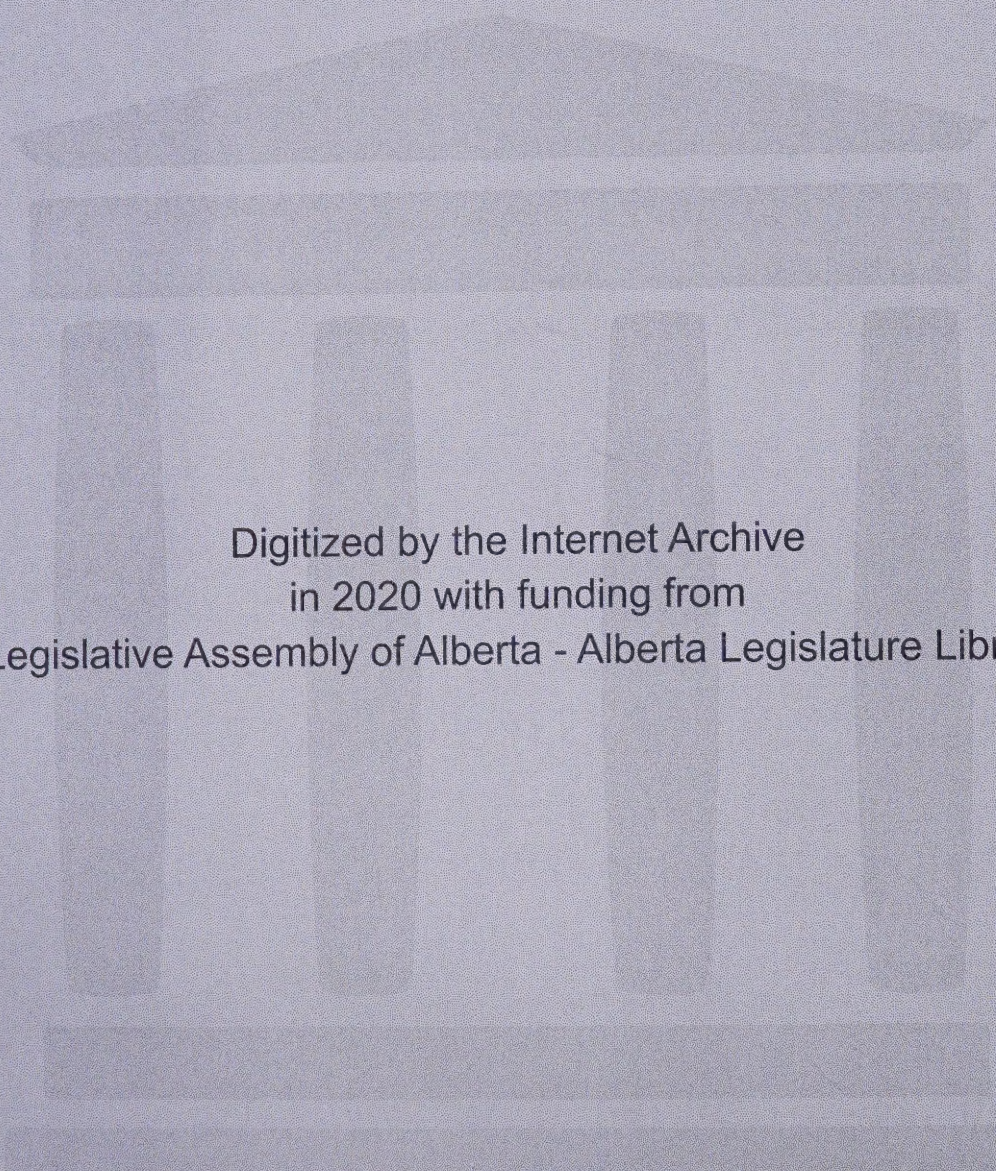
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December 31, 1960.

TO HIS HONOUR,

J. PERCY PAGE,

Lieutenant Governor of the Province of Alberta.

SIR:

I have the honour to transmit herewith, the Annual Report of the Department of Public Health for the year 1959.

I have the honour to be, Sir,

Your obedient Servant,

J. DONOVAN ROSS, M.D.,

Minister of Health.





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December 31, 1960.

TO THE HONOURABLE DR. J. DONOVAN ROSS,  
MINISTER OF HEALTH,  
Administration Building, Edmonton, Alberta.

SIR:

I have the honour to submit herewith, the Forty-First Annual Report of the Department of Public Health.

I have the honour to be, Sir,

Your obedient Servant,

A. SOMERVILLE, B.A., M.D., D.P.H.,  
Deputy Minister of Health.

December 31, 1920

TO THE HONORABLE DR. J. H. HARRIS,  
MINISTER OF HEALTH,  
Administration Building, Edmonton, Alberta.

Sir:

I have the honor to acknowledge the receipt of your  
Report of the Department of Health,  
I have the pleasure to say,

Yours obedient servant,

A. BOWEN, M.A., M.D., F.R.C.P.,  
Deputy Minister of Health.



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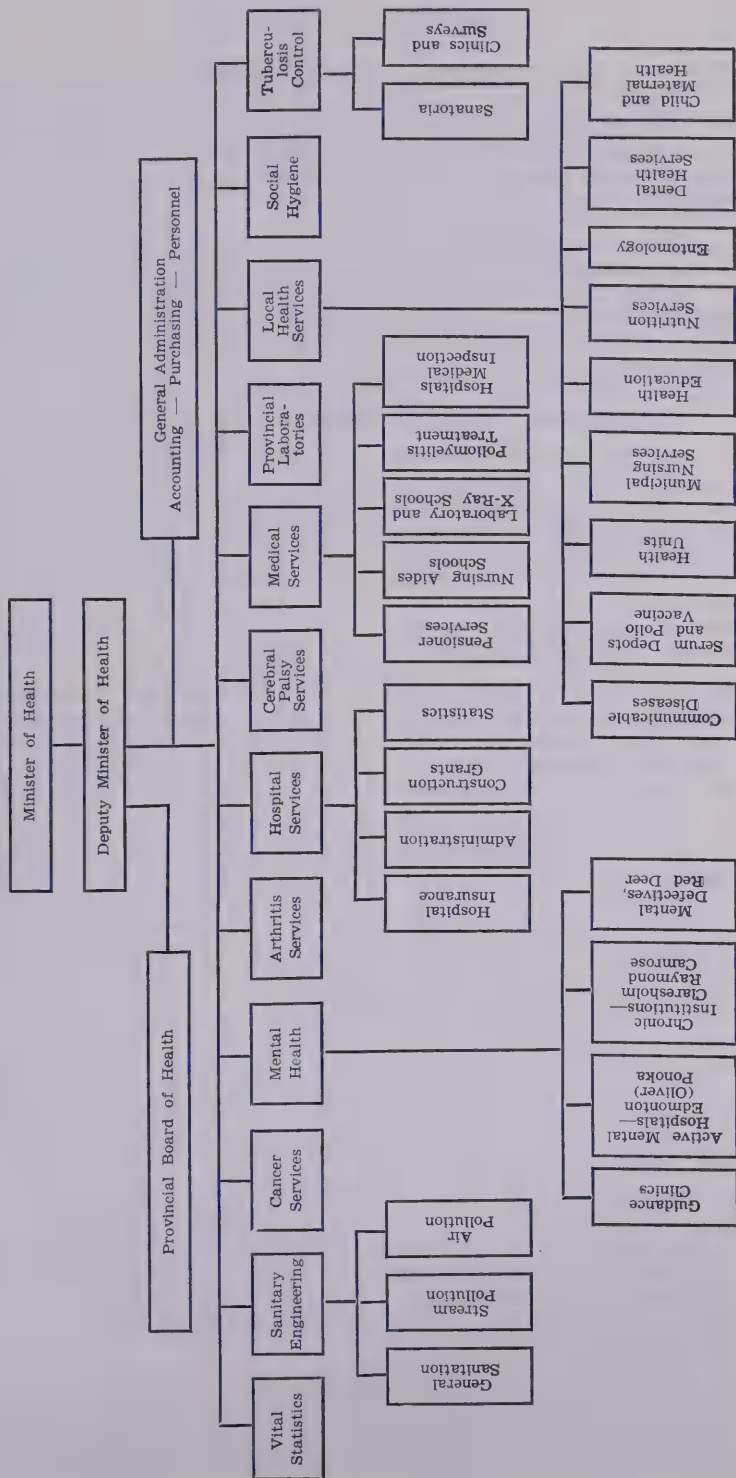
## PART III

Vital Statistics ..... (See separate Contents Page)





# Department of Public Health—Alberta DIVISIONAL ORGANIZATION CHART January - 1959



**PROVINCIAL BOARD OF HEALTH**

The Provincial Board of Health met on such occasions as were necessary during the year 1959. A review of some of the major items considered at these meetings is contained in this report.

There was no change in Board membership during the year. Dr. A. Somerville, Provincial Medical Officer of Health, continued as Chairman and Dr. R. D. Stuart, Provincial Bacteriologist, and Mr. H. L. Hogge, Provincial Sanitary Engineer, were members. Mr. L. E. Stewart, Chief Sanitary Inspector, acted as Secretary.

**Regulations Passed or Amended During The Year**

Alberta Regulation 72/59 - O.C. 296-59 approved new regulations governing beverage rooms. These regulations clarified the responsibility of local boards of health in respect to the control of public health conditions in hotel beverage rooms and other premises where alcoholic beverages are served. The regulations established standards for cleansing, bactericidal treatment and storage of glasses and for lighting, ventilation, insect control, water supplies, toilet facilities and other equipment and conditions of public health significance in beverage rooms.

Alberta Regulation 313/59 - O.C. 1368-59 approved amendments to the regulations respecting nuisances and general sanitation. The amendments extracted the sections relating to waste disposal grounds to form the nucleus of separate regulations on waste disposal grounds referred to in the next paragraph.

Alberta Regulation 314/59 - O.C. 1369-59 approved new regulations respecting waste disposal grounds. These regulations embody the requirements respecting waste disposal grounds formerly in the nuisance regulations. The principle new provisions include requirements that any cities and towns having populations in excess of 10,000 shall operate sanitary landfills, while communities of less than 10,000 are permitted to use trench and cover methods of disposal.

Alberta Regulation 385/59 - O.C. 1700-59 approved an amendment to the regulations relating to the conduct of funerals and interment of dead bodies. This amendment deleted a section which had provided that a permit must be obtained from the Provincial Medical Officer of Health before a corpse could be disinterred.

Eleven persons were appointed Executive Officers of the Provincial Board of Health during the year. There were four cancellations. At the year's end there were 42 such authorizations in effect, an increase from 35 during 1959. Persons holding appointments as Executive Officers of the Provincial Board of Health are employees of the Provincial Department of Public Health or are Municipal Nurses.

Sixty-two nurses in public health work were issued authorizations by the Provincial Board of Health in 1959 certifying them to be capable of performing inoculations and vaccinations in accordance with section 44 of The Public Health Act. Fifty-



three authorizations were returned. At the year's end 163 authorizations were in effect compared with 154 at the end of the preceding year. The increase appears to be due to an increase in the number of nurses employed in public health work.

During the year a few cases of persons who were suffering from tuberculosis in an infectious form and who were refusing treatment were reported to the Board. After proper investigation of each case the Board issued six orders covering removal of these persons to hospitals and sanatoria for treatment. Authority for this is contained in the Communicable Disease Regulations. Four such orders were issued in 1958, two in 1957, eleven in 1956 and seventeen in 1955. It can be seen that 1959 was the third successive year when the number of such orders was less than 10. It would appear that circumstances which make such orders necessary continue to be rare.

The control of pollution in the rivers of the province continued to receive the attention of the Board. During the year the Board issued instructions and followed up its previous instructions to communities and industries using the rivers for disposal of wastes.

The Board gave attention to the possibility that significant amounts of air pollution might be present in various parts of the province which have been affected by industrial growth. The provision of special equipment to the Division of Sanitary Engineering has made it possible to start collecting data in this field. The records being made from the data collected will help to determine what significance can be attached to air pollution in various areas and what steps, if any, may be necessary for the protection of public health. Studies have been started on the effect of oil field batteries, sulphur plants and industrial areas in and adjacent to cities.

Questions in connection with swimming pools and bathing beaches were considered by the Board. Such matters as employment of lifeguards at bathing beaches, installation of package type pools and special requirements for hotel and motel pools were considered. At the year's end a review of existing regulations was under way so that consideration can be given to recommendations for such amendments as may be necessary.

Many other matters received attention during the year. Some of these were the location, supervision, facilities and operation of trailer coach parks and summer camps, veterinary inspection of poultry and health checks for restaurant employees. In these and other matters the Board gave guidance and assistance to the various Divisions of the Department and to Local Boards of Health so that activities could be co-related into a broad program designed to improve the health of the people of the province.

**LEGISLATION PASSED DURING THE YEAR****Chiroprody Professions Act Amendment Act (Chapter 7)**

This Act amended The Chiroprody Professions Act, being chapter 40 of the Revised Statutes.

The name of the practice governed by this Act has been changed from "Chiroprody" to "Podiatry" and all references in the Act are changed accordingly. The Act hereafter will be known as The Podiatry Professions Act. The Act also makes a change in the functions of the Alberta Chiroprody Association and the Board of Examiners in Chiroprody. Previously, the Board, appointed by the Lieutenant Governor in Council, only evaluated educational qualifications; registration and discipline was in the hands of the Association. These powers of registration and discipline are given to the Board and hereafter the right to practise depends upon the holding of a subsisting certificate of competency issued by the Board. Membership in the Association will be voluntary. Persons holding a certificate of registration from the Association on the date this Act came into force are entitled to receive without charge a certificate of competency from the Board and until such certificate is issued the certificate from the Association is deemed to be a certificate of competency.

A new section enables podiatrists to supply or prescribe such drugs, chemicals or compounds as may be authorized by order in council.

This Act came into force on the 7th day of April, 1959.

**The Chiropractic Act Amendment Act (Chapter 65)**

This Act amended The Chiropractic Act, being chapter 41 of the Revised Statutes.

Section 28, subsection (1) was amended by removing the reference to the Provincial Secretary and substituting the reference to the Minister charged with the administration of the Act.

This Act came into force on the 7th day of April, 1959.

**The Dental Association Act Amendment Act (Chapter 65)**

This Act amended The Dental Association Act, being chapter 82 of the Revised Statutes.

Section 27 was amended by removing the reference to the Provincial Secretary and substituting the reference to the Minister charged with the administration of the Act.

This Act came into force on the 7th day of April, 1959.

**Alberta Registered Dietitians Association Act (Chapter 14)**

This Act which is cited as "The Alberta Registered Dietitians Association Act" incorporates the Alberta Registered Dietitians Association in a manner similar to other associations such as physiotherapists, registered nurses, etc. Provision is made for a governing council who have power to make by-laws subject to the approval of the Lieutenant Governor in Council. The



academic standing in the examination of candidates for admission to membership is under the control of the University of Alberta. Members are to be issued certificates of registration and power to suspend or expel members is given. Only members of the association have the right to use the designation "registered dietitian" or any abbreviations, etc., that imply that the person is registered under this Act as a member of the association.

This Act came into force on the 7th day of April, 1959.

#### **Health Unit Act Amendment Act (Chapter 27)**

This Act amended The Health Unit Act, being chapter 139 of the Revised Statutes.

A new subsection (1a) was added to section 16 providing for an additional grant based on the density of population in the health unit area. The grants vary from twenty-five cents per person where the density is less than one person per square mile to five cents per person where the density is between four and five persons per square mile.

A new section 18a was added providing for the payment of health services in national parks not exceeding \$1.25 per capita.

This Act came into force on the 31st day of March, 1959.

#### **Hospitalization Benefits Act, 1959 (Chapter 31)**

This Act cited as "The Hospitalization Benefits Act, 1959", repeals and replaces "The Hospitalization Benefits Act", being chapter 30 of the Statutes of 1957. The new Act consolidates the former Act and amendments with certain new provisions required to give better effect to the Hospitalization Agreement with the Government of Canada. In accordance with the Agreement it is provided that a person injured as a result of the wrongful act or omission of another is entitled to recover the cost of the hospital services against that person even though the hospital services may have been paid for pursuant to this Act, and the Minister is entitled to be reimbursed from any moneys so recovered. For the purposes of more effectively carrying out the provisions of this Act it also amends The Municipal Hospitals Act, being chapter 216 of the Revised Statutes. The functions exercised by the Board of Public Utility Commissioners under that Act are transferred to the Lieutenant Governor in Council or to the Minister.

This Act came into force on the 1st day of April, 1959, and the provision dealing with the recovery of the cost of hospital services as damages is made retroactive to the 1st day of April, 1958.

#### **Hospitals Act Amendment Act (Chapter 32)**

This Act amended The Hospitals Act, being chapter 147 of the Revised Statutes.

Section 2 was amended by revising the definition of "approved hospital" to mean a hospital designated as such by the

Lieutenant Governor in Council. The definition "per diem" allowance was struck out.

Sections 3, 4 and 5 were repealed and replaced. The new section 3 authorizes the Lieutenant Governor in Council to make regulations designating hospitals as approved hospitals, and regulations governing appointment, dismissal or suspension of the medical staff of the hospital, the organization and duties of the staff within the hospital. Regulations may also be made prescribing the standards of service to be made available in the hospitals. The new section 4 authorizes the Minister or any official of the Department of Public Health authorized by the Minister to obtain access to any hospital charts and records for the purpose of assessing the standard of service available in any hospital, and improving surgical techniques. The information is to be treated as confidential but the Minister may use the information for compiling statistical data. A new section 5 authorizes the Lieutenant Governor in Council to establish model by-laws, rules and regulations for adoption by approved hospitals.

This Act came into force on the 7th day of April, 1959.

#### **Medical Profession Act Amendment Act (Chapter 65)**

This Act amended The Medical Profession Act, being chapter 198 of the Revised Statutes.

Sections 2, 31 and 77 were amended by removing the references to the Provincial Secretary and substituting the references to the Minister charged with the administration of the Act.

This Act came into force on the 7th day of April, 1959.

#### **Mental Defectives Act Amendment Act (Chapter 50)**

This Act amended The Mental Defectives Act, being chapter 199 of the Revised Statutes.

Section 15, subsection (1) was amended by replacing clause (e) to provide that where the mentally defective person is under twenty-one years of age the charge payable by the municipality is fifty cents a day for each day the person is in the institution.

A new section 15a was added providing that where a charge for maintenance is not payable by the municipality under section 15, a charge may be made against the estate of the mentally defective person, in an amount to be set by the Lieutenant Governor in Council. The Minister is given authority to waive the recovery of such charges where he deems the circumstances proper.

This Act came into force on the 31st day of March, 1959.

#### **Mental Diseases Act Amendment Act (Chapter 51)**

This Act amended The Mental Diseases Act, being chapter 200 of the Revised Statutes.

A Part III was added to the Act to provide for the establishment of emotionally disturbed children's wards, to which emotionally disturbed children may be admitted upon the request

of a medical practitioner with the consent of the parent or guardian of the child. Provision is made for the retention and discharge of the children from the ward.

This Act came into force on the 1st day of April, 1959.

#### **Naturopathy Act Amendment Act (Chapter 65)**

This Act amended The Naturopathy Act, being chapter 221 of the Revised Statutes.

Section 25 was amended by removing the reference to the Provincial Secretary and substituting the reference to the Minister charged with the administration of the Act.

This Act came into force on the 7th day of April, 1959.

#### **Optometry Act Amendment Act (Chapter 65)**

This Act amended The Optometry Act, being chapter 229 of the Revised Statutes.

Section 3 was amended by removing the reference to the Provincial Secretary and substituting the reference to the Minister charged with the administration of the Act.

This Act came into force on the 7th day of April, 1959.

#### **Provincial General Hospitals Act (Chapter 64)**

This Act cited as "The Provincial General Hospitals Act" will authorize the establishment of a Provincial General Hospital in Calgary. The composition, administration and operation thereof will be very similar to that of the University of Alberta Hospital. The purpose and objects of the hospital is to provide general hospital facilities for active and chronic treatment in the area for which the hospital is established.

This Act came into force on the 7th day of April, 1959.

#### **Public Health Act Amendment Act (Chapter 66)**

This Act amended The Public Health Act, being chapter 255 of the Revised Statutes.

Section 7 was amended to give the Provincial Board of Health authority to make regulations governing the location, facilities, sanitation, maintenance, etc., of summer camps. Section 35 was amended by replacing subsection (4). The new subsection will allow the annual census taken under The Municipalities Assistance Act to be used in the calculation of grants. A new section 43a was added prohibiting the use of shoe-fitting machines that present a radiation hazard.

The new section 43a comes into force on the first of January, 1960, the remainder of the Act came into force on the 7th day of April, 1959.



**Solemnization of Marriage Act Amendment Act (Chapter 79)**

This Act amended The Solemnization of Marriage Act, being chapter 319 of the Revised Statutes.

Section 2 was amended to remove the definition of "Registrar-General" and to substitute a reference to the "Director" as the Director of the Division of Vital Statistics under the new The Vital Statistics Act, 1959.

All references to the "Registrar-General" throughout the Act are changed accordingly.

Section 23 was amended by adding a new subsection (2a) which provides that notwithstanding subsection (2) the required consent may be given by the parent or person having legal custody when the parents are divorced or separated or where one of the parents is confined in a mental institution or by the Superintendent of Child Welfare where the minor is a ward of the government.

This Act came into force on the 7th day of April, 1959.

**Vital Statistics Act, 1959 (Chapter 94)**

This Act cited as "The Vital Statistics Act, 1959", will repeal and replace The Vital Statistics Act, being chapter 360 of the Revised Statutes.

This Act with some slight modification is a uniform Act recommended for enactment by the Conference of Commissioners on Uniformity of Legislation in Canada. The Act provides for a Director of Vital Statistics with whom must be registered all births, stillbirths, adoptions, marriages, divorces and deaths.

This Act comes into force on the 1st day of January, 1960.

## DEPARTMENT OF PUBLIC HEALTH

## REVENUE AND EXPENDITURE FOR FISCAL YEAR ENDING MARCH 31, 1960

		Salaries	Expenses	Revenue
601	Administration - General .....	\$ 13,990.00	\$ 2,809.58	\$ .....
602	Administration - General .....	92,921.11	7,450.79	184.50
618	Administration - Postage .....	.....	8,819.71	.....
605-1	Communicable Diseases .....	8,700.23	128,032.75	.....
605-2	Sanitary Engineering .....	80,814.07	59,358.71	81,901.29
606	Public Health Nursing .....	12,785.60	129,067.38	48,760.30
607	Vital Statistics .....	74,078.59	21,246.52	132,946.41
609	Insulin and Other Special Drugs .....	.....	27,963.49	11,860.33
610	Social Hygiene .....	74,439.11	16,061.70	57,347.88
616	Hospitals Division .....	98,169.13	38,406,342.18	15,153,736.22
646	Hospital Construction Grant .....	.....	929,187.48	673,083.34
617	Medical Services .....	32,811.37	1,419,339.01	.....
626	Public Health Laboratories .....	.....	459,817.80	.....
631	Poliomyelitis .....	.....	134,168.43	.....
633	Cancer Services .....	277,921.87	825,672.86	293,834.33
638	Civil Service Nurse .....	6,928.74	1,031.04	.....
639	Public Health Education .....	23,691.17	10,753.50	5,072.33
640	Entomology and Vector Control .....	13,883.75	7,346.29	.....
641	Health Units .....	12,073.10	791,284.79	606,423.22
642	Dental Health Services .....	4,046.03	711.61	.....
643	Nursing Aides .....	79,862.06	234,343.09	268,021.10
644	Laboratory and X-Ray School .....	16,471.94	19,171.23	34,670.77
645	Health Services—Extension Program .....	5,440.00	1,633,551.32	2,102,229.91
648	Grants for Public Health Services .....	.....	176,727.00	.....
649	Alcoholism Foundation of Alberta .....	.....	125,000.00	.....
651	Cerebral Palsy Clinics .....	68,743.42	27,079.74	40,357.36
652	Arthritis Services .....	12,402.60	2,691.00	.....
653	Poison Control Services .....	.....	4,036.02	.....
654	Emergency Air Ambulance Services .....	.....	15,594.94	.....
656	Medical Rehabilitation Services .....	.....	6.50	.....
657	Industrial Health Services .....	.....	445.50	.....
S.W. 58	Professional Acts .....	.....	110.00	.....

## DIVISION OF MENTAL HEALTH

622	Director's Office and Guidance Clinics .....	149,129.39	21,837.62	100,000.00
612-1	Provincial Mental Institute, Edmonton .....	1,871,048.67	490,522.11	527,376.93
612-3	Provincial Mental Hospital, Ponoka .....	1,606,465.76	501,787.79	623,972.15
612-4	Provincial Auxiliary Mental Hospital, Claresholm .....	78,002.91	40,192.45	33,303.80
612-5	Provincial Auxiliary Mental Hospital, Raymond .....	93,521.62	26,586.25	41,689.08
612-6	Rosehaven, Camrose .....	557,452.83	114,289.57	543,327.95
614-1	Provincial Training School, Red Deer .....	1,108,063.85	274,906.02	286,106.82
614-2	Deerhome, Red Deer .....	725,803.28	256,483.46	263,239.49
615	Emotionally Disturbed Children's Program .....	5,976.20	6,676.94	1,376.00

## DIVISION OF TUBERCULOSIS CONTROL

604-1	Director's Office and Clinics .....	65,014.43	79,166.05	30,674.62
604-2	Baker Memorial Sanatorium, Calgary .....	760,980.22	179,470.42	299,396.64
604-3	Aberhart Memorial Sanatorium, Edmonton .....	795,094.33	194,159.69	196,321.70
		<u>\$ 8,826,727.38</u>	<u>\$47,811,300.33</u>	<u>\$22,457,214.47</u>

Total Expenditure—Public Health Department .....

Less Public Health Revenue .....

Net Expenditure—Department of Public Health .....

The Vital registrations during the year were as follows:

Births .....	38,080
Marriages .....	10,402
Deaths .....	8,481

The population for 1959 was officially estimated as 1,243,000 and, therefore, the following rates have been recorded:

Year	No. of Births	Birth Rate	No. of Marriages	Marriage Rate	No. of Deaths	Death Rate
1954 .....	33,593	32.3	9,960	9.6	7,520	7.2
1955 .....	34,357	32.2	9,844	9.2	7,956	7.5
1956 .....	34,951	31.1	9,965	8.9	7,786	6.9
1957 .....	35,719	30.8	10,117	8.7	8,255	7.1
1958 .....	36,842	30.7	10,186	8.5	8,237	6.9
1959 .....	38,080	30.6	10,402	8.4	8,481	6.8

On the whole these figures are good. The total number of births is up although the birth rate is down slightly. The natural increase (excess of births over deaths) was 29,599.

### **Alcoholism**

The Alcoholism Foundation of Alberta is a voluntary society supported during the fiscal year 1959-60 by the Province of Alberta by a grant of \$125,000.00. This was approximately 75% of their income.

The Foundation recognizes alcoholism as a treatable illness and a public health responsibility and is, therefore, concerned with problem drinking. Its aim is to prevent problem drinking through education, treatment and research. In carrying out this program 521 persons were treated in 1958, bringing the total treated to 4,142 since the inception of the service, of which 56% are reported as having achieved more or less recovery.

### **Hospital Services**

The Alberta hospital insurance program continued to expand. The Province has accepted the responsibility to pay the principal and interest on all debentures and loans which fall due after January 1st, 1959. The Federal Government does not recognize capital cost of hospital buildings as part of the cost of hospitalization and, therefore, does not contribute towards this debenture debt. The cost of major equipment for hospitals is shared between the federal and provincial governments on a fifty-fifty basis, while the cost of minor equipment is paid for by the Province.

On April 1st, 1959, Alberta introduced its insurance program covering auxiliary hospitals. These institutions take care of the type of case which requires some nursing care but does not require the expensive services of a full-fledged hospital. In the beginning the Department accepted a group of 10 institutions that were already in operation, paying them about \$4.50 per patient day, leaving the patient responsible for \$1.50 per day. The Province has arranged to pay the debenture costs of new institutions of this nature. The Federal Government supports the capital cost at \$1,500.00 per bed out of an estimated cost of \$6,500.00. These new institutions will be built in units of fifty beds scattered at strategic points throughout the rural parts of the Province and in 100-bed units in the cities. An active building program is under way aimed at making 3,000 beds available.

In support of the operating cost of these auxiliary hospitals an additional mill has been added to the municipalities' hospital tax which was previously at three mills for acute hospitalization. The operating cost is, therefore, divided approximately 25% from the patient, about 20% from the municipality and the balance or about 55% from the Province.

In addition, the Department of Public Welfare is building a number of Homes for the Aged which will supply the need for space for elderly persons and others who need a degree of supervision but do not need nursing care.

### **Division of Sanitary Engineering**

This Division has been expanding steadily in the last few years. A major responsibility is the supervision of the large number of water supplies and sewage disposal systems. Almost every community in the Province down to a population of three



hundred persons has these services. 170 water systems serve 782,133 people and 177 sewer systems serve 785,993 people. Most of these are small units and, therefore, require considerable supervision

The lagoon method of sewage disposal has developed widely and 114 communities are now using this method. A research program over the past couple of years indicates that these lagoons, especially if operated in series, give a highly efficient result in summer and a satisfactory result even when operating under ice cover. No serious complaints have come forward except occasional complaints of odors from the lagoons during the spring "turnover".

A ground water survey being conducted by the Alberta Research Council is discovering better sources of underground water and this is proving useful in finding adequate water supplies for the smaller communities and for smaller industries. The larger cities all get their water from surface streams.

The stream pollution studies have continued and the proper treatment of effluents prior to disposal has called for the issuing of a number of orders to municipalities and to industries. No serious complaints arose in 1959 such as occurred a few years ago. However, it is recognized that the winter flow of the North Saskatchewan River is so low as to barely meet the demands.

Air pollution still continues as a major responsibility for the sanitary engineers. 41 exposure cylinders have been set up on a more or less permanent basis at points in our major cities and adjacent to gas plants and refineries. Also, during 1959 a portable laboratory was put into operation. This laboratory can be moved to spots where problems arise and is particularly geared to the assessment of sulphur compounds. The sale of Alberta's gas calls for the removal of thousands of tons of sulphur daily from the gas, and these plants and the handling of the sour gas is creating a continual problem. A few locations have been given special attention. The sulphur levels found in Alberta are below the levels reported elsewhere but, nevertheless, many complaints keep coming in. It is the intention of the Department to further expand this detection program because additional sulphur plants are planned in Alberta related to the sale of natural gas.

### **Mental Health Service**

During 1959 the capacity of our mental services increased by opening a new dormitory at Deerhome. However, this space was used immediately to house patients removed from Wards 4, 5 and 6 at Ponoka. These wards, among the oldest at Ponoka, are in poor shape and are to be completely remodelled.

Much thought has been given to the problem of the Emotionally Disturbed Child. It is difficult to get information of a factual nature since no program elsewhere appears to have been developed for a long enough period of time. It was, therefore, decided to remodel a building on the grounds of the Provincial Training School at Red Deer to provide a pilot plant for the study. A more permanent program is to be developed later. This pilot plant was ready to commence operations at the end of the year.

### **Cancer Services**

A big step was taken in the cancer services with the opening of a Cancer Clinic Building at Calgary. Up to the present time the clinic has been housed in the Holy Cross Hospital with x-ray service purchased from that hospital. No heavy radiological service has been available in Calgary. The new building houses a diagnostic service including a medical laboratory and diagnostic x-ray, while in the treatment field heavy duty x-ray, a "cobalt bomb" and a caesium unit have been provided. A caesium unit was also added this year to the Edmonton Cancer Clinic.

### **Child and Maternal Health**

During 1959 recognition was given to the importance of child and maternal health as a public health problem by the official establishment of a service under Mrs. Janet Bailey, R.N., P.H.N. Previously, the requirements in this field had been met by medical officers and nurses in the Division of Local Health Services.

### **Dental Health**

Dental health was recognized in 1959 by the appointment of Dr. C. W. B. McPhail, B.Sc., D.D.S., M.S.D., as the Director of Dental Health Services for Alberta. Dr. McPhail also works part-time on the teaching staff of the University of Alberta.

### **Special Drugs**

For many years Alberta has been supplying insulin to diabetics under a means' test. During 1959 this service was extended by the distribution of oral antidiabetic drugs. This special drugs program also includes the supplying of penicillin for continued use of persons under 18 years of age who have had an attack of rheumatic fever.

Under consideration at the moment is the possibility of supplying corticoids for the treatment of lupus erythematosus and of nephrosis.

### **Professional Acts**

In view of amendments ratified at the 1959 Session of the Legislature, certain Professional Acts relating to the health field were transferred from the Provincial Secretary's Department to the Department of Public Health and by authority of Order-in-Council 1617/59, the Minister of Health was charged with the administration of the following Acts:

- The Podiatry Professions Act
- The Chiropractic Act
- The Dental Association Act
- The Medical Profession Act
- The Naturopathy Act
- The Optometry Act
- The Chartered Physiotherapists Act
- The Veterinary Surgeons Act

In regard to The Podiatry Professions Act and The Optometry Act, Boards of Examiners have been continued by the Depart-

ment in order to license all members who desire to practice in Alberta. Pursuant to The Chiropractic Act and The Naturopathy Act, Appraisal Boards have been continued by the Department in order that members wishing to practice in Alberta may be "listed" through the Provincial Government. In the case of the other Professional Acts, membership is obtained through the various Associations established under each respective Act.

During the calendar year 1959, the Chiropractic Appraisal Board approved twelve applications and rejected one. The Board of Examiners, pertaining to The Optometry Act, issued four licenses and rejected none. No applications were received under The Podiatry Act or The Naturopathy Act.

Respectfully submitted,

A. SOMERVILLE, B.A., M.D., D.P.H., L.R.C.P.S.(C),  
Deputy Minister of Health.



## DIVISION OF LOCAL HEALTH SERVICES

**E. S. Orford Smith, M.A., M.B., B.Chir., D.P.H., D.I.H., Director**

The Division of Local Health Services was enlarged during 1959 by the establishment of two new professional positions, for a Director of Dental Health and a Nursing Consultant in Maternal and Child Health. The new Director of Dental Health is Dr. C. W. B. McPhail, who also serves as Associate Professor of Public Health and Preventive Dentistry with the Dental Faculty at the University of Alberta, dividing his time between these appointments. The position of Nursing Consultant in Maternal and Child Health was filled by Mrs. J. C. Bailey.

The Division therefore now consists of the following branches, each under the supervision of a director or consultant:

- (1) Communicable Diseases
- (2) Health Units
- (3) Public Health Nursing
- (4) Maternal and Child Health
- (5) Dental Health
- (6) Health Education
- (7) Nutrition Services
- (8) Entomology and Vector Control

The Director of Public Nursing, Mrs. D. McPhail, was on educational leave at the University of Michigan during the first half of the year, and returned after obtaining her M.P.H. degree.

The Division of Local Health Services is the Department's principal link with local Boards of Health, serving these bodies in an advisory capacity in relation to their administrative problems, and in a consultant capacity in relation to their professional and technical responsibilities.

The heads of the various branches collaborate closely, not only with other divisions of the Department, but also with other departments of the Government which are associated with particular phases of public health activity. In addition, they maintain frequent contact with the chiefs and consultants of corresponding divisions of the Department of National Health and Welfare.

The Director of Local Health Services and the Nursing Consultant in Maternal and Child Health represented the Province at the second annual meeting of the Maternal and Child Health Advisory Committee in Ottawa.

A voluntary project which was begun in 1958 for the immunization of civil servants in Edmonton against poliomyelitis was continued during 1959 by a team from the Division with the assistance of the Civil Service Nurse. By the end of 1959 there were 2,048 civil servants completely immunized and 1,707 others partially protected.

The reports which follow contain a more detailed account of the functions and responsibilities of the branches of the Division, and indicate their achievements during the year.

## COMMUNICABLE DISEASES

**E. S. Orford Smith, M.A., M.B., B.Chir., D.P.H., D.I.H., Director**

The Communicable Diseases branch of the Division of Local Health Services undertakes:

- (1) The collection, preparation and transmission of information, and the compilation of statistics, concerning the morbidity and mortality of communicable diseases;
- (2) The provision of consultant services to local health authorities on matters relating to the control of communicable diseases;
- (3) The direction or application of control measures against communicable diseases in areas administered by the Provincial Government which are outside the jurisdiction of Health Units;
- (4) The interpretation and distribution of Communicable Disease Regulations;
- (5) The distribution of immunizing antigens and sera, and supervision of the utilization of those in limited supply;
- (6) The appraisal of immunization programs, and the publication of specific recommendations in relation to them.

### COMMUNICABLE DISEASE REGULATIONS

The Director was authorized by the Provincial Board of Health to form a committee for the purpose of reviewing the Communicable Disease Regulations, last published in 1953, and of recommending any necessary changes.

The need for such a review, although due, was in part precipitated by a request from the Dominion Bureau of Statistics for the adoption of a basic standard list of notifiable diseases which had been approved and recommended by the Dominion Council of Health, but which included several diseases that were not legally reportable in Alberta.

A committee was duly formed, consisting of Dr. G. H. Ball of the City of Edmonton Health Department, Dr. C. G. Moore of the Red Deer Health Unit, and Dr. D. Stewart of the Sturgeon Health Unit. The committee met on several occasions and embarked on a very thorough review, giving particular consideration to suggestions which were solicited from Medical Officers of Health throughout the Province. Work was still proceeding at the end of the year.

### NOMENCLATURE OF DISEASES

The introduction of a standard list of notifiable diseases by the Dominion Bureau of Statistics has involved certain changes in nomenclature. The most important of these changes are in relation to viral or aseptic meningitis. Cases which were formerly reported as non-paralytic poliomyelitis are now classified as viral or aseptic meningitis, and sub-classified as (a) due to poliovirus, (b) due to Coxsackie virus, (c) due to ECHO virus or (d) other and unspecified. Until the causative virus is identified, a case of viral or aseptic meningitis is assigned to the category of unspecified aetiology.

## PARALYTIC POLIOMYELITIS

1959 was marked by an unexpected reversal in the morbidity trend of poliomyelitis, not only in Alberta, but all across Canada. There were 82 reported cases of paralytic poliomyelitis during the year, and 13 deaths. The corresponding figures for the two preceding years were 34 cases with 6 deaths in 1957, and 22 cases with 1 death in 1958. Type 1 poliovirus was identified in 39 cases, and type 3 in one case; type 2 poliovirus was also present in one of the type 1 cases. Eighteen of the cases and five of the deaths occurred in the area of Fort Vermilion and La Crete. Table 1 shows the age distribution and vaccination status of cases and deaths.

TABLE 1  
AGE DISTRIBUTION AND VACCINATION STATUS OF PARALYTIC POLIOMYELITIS  
CASES AND DEATHS REPORTED FOR 1959

Age Group	Number of Cases	No. of Doses Salk Vaccine				Number of Deaths	No. of Doses Salk Vaccine			
		0	1	2	3		0	1	2	3
0 - 4 .....	34	17	3	3	11	4	3	....	1	....
5 - 9 .....	22	10	3	....	9	4	3	1	....	....
10 - 14 .....	1	....	....	....	1	....	....	....	....	....
15 - 19 .....	2	1	....	....	1	....	....	....	....	....
20 and Over .....	23	17	3	1	2	5	4	....	1	....
Total .....	82	45	9	4	24	13	10	1	2	....

By way of comment, it should be recalled that Dr. Jonas E. Salk never claimed that his vaccine was more than 90 per cent effective. Immunity is essentially a relative matter, and the degree of immunity which can be acquired by artificial means must inevitably depend not only upon the biological ability of each individual to produce antibodies in response to a particular antigenic stimulus, but also upon the virulence and concentration of the infecting organism to which he is subsequently exposed. It is known, moreover, that the average immunological response to Salk vaccine is lower in respect of type 1 poliovirus than in respect of types 2 and 3. The fact that type 1 was the most frequently identified poliovirus in the Province during 1959 may help to account for the increased incidence.

## VIRAL OR ASEPTIC MENINGITIS

There were 32 reported cases of viral or aseptic meningitis during the year. This figure may be compared with the figures reported in previous years for non-paralytic poliomyelitis, of which there were 31 cases in 1957 and 15 in 1958. Type 1 poliovirus was identified in six cases, and ECHO virus in two (type 6 and type 9); the remaining 24 cases were of unspecified aetiology. Ten of the cases occurred in the La Crete area, including two from whom poliovirus was isolated. Table 2 shows the age distribution and vaccination status of cases known to be due to poliovirus and of those whose aetiology was unspecified.

TABLE 2

AGE DISTRIBUTION AND VACCINATION STATUS OF VIRAL OR ASEPTIC  
MENINGITIS CASES DUE TO POLIOVIRUS AND OF UNSPECIFIED  
AETIOLOGY REPORTED FOR 1959

Age Group	No. of Cases due to Poliovirus	No. of Doses Salk Vaccine				No. of Cases of Unspec- ified Aetiology	No. of Doses Salk Vaccine			
		0	1	2	3		0	1	2	3
0 - 4 .....	2	2	....	....	....	11	5	3	....	3
5 - 9 .....	3	....	....	....	3	3	1	....	....	2
10 - 14 .....	1	1	....	....	....	3	....	....	....	3
15 - 19 .....	....	....	....	....	....	....	....	....	....	....
20 and Over .....	....	....	....	....	....	7	5	1	1	....
Total .....	6	3	....	....	3	24	11	4	1	8

### TYPHOID FEVER

There were 13 cases of typhoid fever reported during the year, with no fatality. The corresponding figures for the two preceding years were 16 cases with two deaths in 1957, and six cases with no fatality in 1958. Three cases which occurred in the Drayton Valley area at the beginning of March were suspected to have contracted their infection by drinking untreated water which had been drawn through the ice from the North Saskatchewan River. A 62-year-old woman who was diagnosed at Hanna had evidently been developing the disease on her way home from a visit to an area of the United States where serious flooding had taken place.

### DIPHTHERIA

There were ten cases of diphtheria notified in 1959, all of whom recovered. This number was the second lowest annual incidence ever recorded in Alberta, having been undercut in 1951 and equalled in 1955, and represented a gratifying improvement over the two preceding years' records of 39 cases with six deaths in 1957 and 17 cases with two deaths in 1958. Only once before, in 1956, did a year go by without a single diphtheria death.

### MEASLES

The number of measles cases reported during the year was 3,956, slightly higher than the 1958 incidence of 3,383, but still well below the 1957 peak of 12,337. The number of deaths from measles was three, which was the lowest figure since 1956 and the second lowest in the history of the Province, comparing favourably with 16 fatalities in 1957 and four in 1958.

### STREPTOCOCCAL INFECTIONS

In 1959 the number of notified cases of scarlet fever and streptococcal sore throat reached an all-time high of 5,132, representing a nearly seven-fold increase over the 1957 incidence of 774, and a nearly five-fold increase over the 1958 incidence of 1,062. The fact that there were also five deaths in 1959, compared with one in 1957 and none in 1958, would suggest very strongly that the rise in the reported incidence reflected a real increase in the prevalence of streptococcal infections rather than a desir-



able improvement in the standard of notification. The upward trend in morbidity was viewed with some concern by the committee responsible for reviewing the Communicable Disease Regulations, and the wisdom of a 1958 decision to relax the rule on quarantine for scarlet fever and streptococcal sore throat was very seriously questioned.

The control of streptococcal infections is more than merely an end in itself, for any acute streptococcal infection may be the precursor of much graver disease such as nephritis or rheumatic fever, either of which can cause permanent damage and can shorten life. It is therefore relevant to mention here some facts concerning the incidence of rheumatic fever and rheumatic heart disease in Alberta which have been extracted from data compiled by the Division of Medical Services in connection with its program of rheumatic fever prophylaxis. By the end of 1959 a total of 925 children under the age of 18 years had, over an eighteen-month period since the program's inception, been accepted as eligible for free penicillin by virtue of a rheumatic history. The incomplete figure for the number of first attacks of rheumatic fever in 1959 was 183, while by the end of 1959, the cumulative incidence for 1958 had reached 209. The average age of these children at the onset of disease was very close to 8½ years. It was observed that a single attack of rheumatic fever had been sufficient to cause the damage in no less than 52 per cent of the 357 children who had definite cardiac involvement.

### PSITTACOSIS

A serologically confirmed case of psittacosis occurred in a 26-year-old female technician who had handled a dead budgerigar at the Provincial Veterinary Laboratory. The young woman made an uneventful recovery, but the subsequent discovery of psittacosis in a long series of budgerigars which died within a few days of their arrival at retail stores in Alberta from a source in Ontario gave rise to much concern. Physicians were advised to consider the possibility of psittacosis in cases of atypical pneumonia, and to enquire in such cases for a history of contact with psittacine birds. Representatives from the Veterinary Branch of the Provincial Department of Agriculture were invited to participate in discussions on the control of psittacosis.

### TETANUS

One case of tetanus was reported during the year in a 9-year-old boy, the third case in a ten-year period. The child stepped on a nail in a barnyard, was admitted to hospital two days later with a cellulitis of the foot, and developed tetanic spasms two days after admission. He died on his fourth day in hospital. The importance of this case lies in the fact that the boy had received a series of three inoculations of tetanus toxoid three years previously, and a reinforcing dose about four months previously. Certain features in the clinical picture suggested very strongly that a septicaemia had been present, and the physician eventually agreed that the immediate cause of death might well have been septicaemia rather than tetanus, but he still considered that the child had had tetanus. The child was therefore recorded as a tetanus case, but not as a tetanus death.

## IMMUNIZATION

Immunizing antigens and sera to the value of approximately \$264,000.00 were distributed during 1959 with the help of the Provincial Laboratory of Public Health.

Local health authorities continued to encourage persons up to the age of 40 years, and expectant mothers of any age, to seek vaccination against poliomyelitis, and the supply of vaccine was usually sufficient to enable them to extend their programs to include any persons over the age of 40 years who desired this protection. In table 3 is estimated Alberta's vaccination status against poliomyelitis at the end of 1959.

TABLE 3  
ESTIMATED VACCINATION STATUS AGAINST POLIOMYELITIS AT END OF 1959

Age Group and Category	Estimated Number of Persons Who Received Two Doses Only of Salk Vaccine by 31st December, 1959	Estimated Number of Persons Who Received Three of More Doses of Salk Vaccine by 31st December, 1959	Total
0 - 4 .....	55,720	135,015	190,735
5 - 19 .....	55,045	227,705	282,750
20 - 39: Expectant Mothers .....	13,855	21,820	35,675
20 - 39: Others .....	74,775	112,550	187,325
40 and Over .....	5,855	41,770	47,625
Total .....	205,250	538,860	744,110

TABLE 4  
NUMBER OF CASES OF COMMUNICABLE DISEASES REPORTED  
IN THE YEARS 1958 AND 1959

	1958	1959
Brucellosis .....	1	...
Diarrhoea of the newborn .....	...	...
Diphtheria .....	17	10
Dysentery:		
(a) Amoebic .....	83*	61
(b) Bacillary .....		...
(c) Unspecified .....		...
Encephalitis, infectious (arthropod-borne) .....	**	...
Food poisoning:		
(a) Staphylococcus intoxication .....	83*	6
(b) Salmonella infections .....		36
(c) Unspecified .....		9
Hepatitis, infectious .....	**	527
Leprosy .....	2	...
Measles .....	3,383	3,956
Meningitis, viral or aseptic:		
(a) Due to poliovirus .....	15*	6
(b) Due to Coxsackie .....		...
(c) Due to ECHO virus .....		2
(d) Other and unspecified .....		24
Meningococcal infections .....	5	6
Paratyphoid fever .....	5	2
Pemphigus neonatorum .....	...	...
Pertussis .....	684	657
Poliomyelitis, paralytic .....	22	82
Psittacosis .....	...	1
Rocky Mountain spotted fever .....	...	2
Rubella .....	2,268	950
Scarlet fever and streptococcal sore throat .....	1,062	5,132
Smallpox .....	...	...
Tetanus .....	...	1
Tuberculosis:		
(a) Pulmonary .....	449	451
(b) Other and unspecified .....	76	101
Tularaemia .....	**	1
Typhoid fever .....	6	13

\*Not differentiated in previous reports.

\*\*Figures not available.

## DEPARTMENT OF PUBLIC HEALTH

TABLE 5  
DEATHS ASCRIBED TO COMMUNICABLE DISEASES FOR THE YEARS 1958 AND 1959

	1958		1959	
	Total Deaths	Rate per 100,000 of population	Total Deaths	Rate per 100,000 of population
Diarrhoea of the newborn .....	1	0.1	14	1.1
Diphtheria .....	2	0.2	0	0.0
Measles .....	4	0.3	3	0.2
Meningococcal infections .....	1	0.1	2	0.2
Paratyphoid fever .....	0	0.0	1	0.1
Pertussis .....	2	0.2	5	0.4
Poliomyelitis, paralytic .....	1	0.1	13	1.0
Smallpox .....	0	0.0	0	0.0
Tuberculosis:				
(a) Pulmonary .....	35	2.9	37	3.0
(b) Other and unspecified....	9	0.7	7	0.6
Typhoid fever .....	0	0.0	0	0.0
Population of Alberta in 1958 1,201,000	Population of Alberta in 1959 1,243,000			

TABLE 6: COMMUNICABLE DISEASE CASES REPORTED IN 1959 BY SEX, AGE AND PERIOD OF REPORTING

	SEX		FOUR WEEKLY PERIODS										AGES						TOTAL							
	Male	Female	1 - 4	5 - 8	9 - 12	13 - 16	17 - 20	21 - 24	25 - 28	29 - 32	33 - 36	37 - 40	41 - 44	45 - 48	49 - 52	Under 1	1 - 4	5 - 9		10 - 14	15 - 19	20 - 39	40 - 59	60 and Over	Age Not Stated	
DIPHTHERIA																										
Edmonton .....																										
Calgary .....																										
Lethbridge .....																										
Medicine Hat .....																										
Red Deer .....	5	5	2	2	1	1	1	1	1			1	1	1	1			2	4	1			2			
Rural .....																										
Total .....	5	5	2	2	1	1	1	1	1			1	1	1	1			2	4	1		1	2		10	
DIPHTHERIA CARRIERS																										
Edmonton .....																										
Calgary .....																										
Lethbridge .....																										
Medicine Hat .....																										
Red Deer .....																										
Rural .....	3	2							1					1	2	1			3	1				1	5	
Total .....	3	2							1					1	2	1			3	1			1		5	
DYSENTERY - BACILLARY																										
Edmonton .....	1																1								1	
Calgary .....																										
Lethbridge .....																										
Medicine Hat .....																										
Red Deer .....																										
Rural .....	29	31	3	6	12	3	6	1	2	1	6	10	2	6	2	2	2	22	13	5	2	4	8	1	3	60
Total .....	30	31	3	6	12	3	6	1	2	2	6	10	2	6	2	3	22	13	5	2	4	8	1	3	61	



TABLE 6: COMMUNICABLE DISEASE CASES REPORTED IN 1959 BY SEX, AGE AND PERIOD OF REPORTING (Continued)

	SEX		FOUR WEEKLY PERIODS										AGES						TOTAL								
	Male	Female	1 - 4	5 - 8	9 - 12	13 - 16	17 - 20	21 - 24	25 - 28	29 - 32	33 - 36	37 - 40	41 - 44	45 - 48	49 - 52	Under 1	1 - 4	5 - 9		10 - 14	15 - 19	20 - 39	40 - 59	60 and Over	Age Not Stated		
			FOOD POISONING — STAPHYLOCOCCUS INTOXICATION																								
Edmonton .....																											
Calgary .....																											
Lethbridge .....	2	4										4			2						6				6		
Medicine Hat .....																											
Red Deer .....																											
Rural .....																											
Total .....	2	4										4			2						6				6		
FOOD POISONING — SALMONELLA																											
Edmonton .....	4	2							2			1	3			2	1	1				6		2	0		
Calgary .....	4	6								3		6	1									4			10		
Lethbridge .....																											
Medicine Hat .....																											
Red Deer .....	2								2								1	1	2						2		
Rural .....	5	13					4	4		3		4	1	1	1	1	1	2	2	5	4		3		18		
Total .....	13	23					4	4	4	6	11	5		1	1	4	3	3	2	11	8	5			36		
FOOD POISONING — UNSPECIFIED																											
Edmonton .....																											
Calgary .....																											
Lethbridge .....	2	3								3		2									5				5		
Medicine Hat .....																											
Red Deer .....																											
Rural .....	2	2								1					3		1	1	1		1				4		
Total .....	4	5								4	2				3		1	1	1	6					9		

# INFECTIOUS HEPATITIS

Edmonton	3	1	4	...	3	1	2	...	1	6	...	2	...	3	1	4	...	6	...	5	...	2	...	2	...	11	...	5	...	4	...	1	...	4	...	4	...
Calgary	19	21	4	...	3	1	2	...	1	6	...	5	...	3	1	4	...	6	...	6	...	2	...	2	...	11	...	5	...	16	...	5	...	16	...		
Lethbridge	4	2	4	...	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Medicine Hat	4	1	4	...	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Red Deer	1	4	...	...	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Rural	211	256	44	...	61	47	53	...	50	27	24	21	...	11	34	30	...	37	28	...	1	16	115	102	45	140	21	7	20	467	...	...	...	...			
Total	242	285	52	...	69	54	57	...	52	34	27	24	...	12	38	36	...	42	30	...	1	20	130	110	45	167	26	8	20	527	...	...	...	...			

## MEASLES

	496	543	49	44	10	35	74	48	70	61	23	46	139	219	221	41	369	601	22	3	2	1	1,037
Edmonton .....	424	393	45	60	134	80	64	46	36	21	6	35	73	102	115	13	149	581	76	1	1	1	817
Calgary .....	172	181	1	1	5	3	6	5	8	1	1	1	1	...	1	8	16	3	...	...	...	...	28
Lethbridge .....	12	16	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medicine Hat .....	6	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Red Deer .....	66	66	3	4	2	...	...	27	48	21	4	2	7	...	...	12	74	42	...	...	...	...	130
Rural .....	1,020	913	88	86	105	126	169	188	140	66	56	82	179	336	312	204	667	886	119	13	11	3	1,933
Total .....	2,025	1,931	187	196	251	250	320	311	302	171	94	166	398	657	653	273	1,271	2,130	214	17	15	2	3,956

MENINGITIS, VIRAL OR ASEPTIC — DUE TO POLIOVIRUS

[illegible]

MENINGITIS. VIRAL OR ASEPTIC — DUE TO ECHO VIRUS

Edmonton .....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	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TABLE 6: COMMUNICABLE DISEASE CASES REPORTED IN 1959 BY SEX, AGE AND PERIOD OF REPORTING (Continued)

SEX		FOUR WEEKLY PERIODS										AGES						TOTAL								
		Male	Female	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	41-44	45-48	49-52	Under 1		1-4	5-9	10-14	15-19	20-39	40-59	60 and Over	Age Not Stated
MENINGITIS, VIRAL OR ASEPTIC — OTHER AND UNSPECIFIED																										
Edmonton	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calgary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lethbridge	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Medicine Hat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Red Deer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rural	11	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	15	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MENINGOCOCCAL INFECTIONS																										
Edmonton	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calgary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lethbridge	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Medicine Hat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Red Deer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rural	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PARATYPHOID B FEVER																										
Edmonton	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calgary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lethbridge	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Medicine Hat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Red Deer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rural	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2

## PERTUSSIS

Edmonton	81	92	26	14	10	10	39	17	8	13	16	15	2	3	22	59	70	21	1	...	...	173
Calgary	91	81	24	23	23	16	3	19	1	10	1	23	9	13	9	33	103	25	1	...	...	177
Lethbridge	2	2	...	...	1	1	...	...	...	1	1	3	...	...	...	4	1	3	...	...	...	5
Medicine Hat	1	1	...	...	...	...	1	1	1	...	...	3	...	...	1	...	4	...	...	...	...	7
Red Deer	130	163	48	20	10	26	21	20	14	5	31	40	28	15	49	105	103	30	2	...	...	2
Rural	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	293
Total	305	352	100	57	43	54	63	57	24	28	50	82	37	30	81	203	281	79	4	7	...	657

## POLIOMYELITIS, PARALYTIC

Edmonton	2	3	...	...	...	...	...	...	...	1	1	...	3	...	...	1	1	...	...	...	...	5
Calgary	7	6	...	...	...	...	...	...	...	...	2	4	3	1	1	6	2	...	...	...	...	13
Lethbridge	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Medicine Hat	1	1	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	2
Red Deer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rural	35	27	1	1	...	...	...	1	1	2	9	9	12	21	2	23	19	1	2	9	6	62
Total	45	37	1	1	...	...	...	1	1	3	12	14	19	22	3	31	22	1	2	17	6	82

## PSITTACOSIS

Edmonton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Calgary	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Lethbridge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medicine Hat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Red Deer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rural	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1

## RICKETTSIAL INFECTIONS — ROCKY MOUNTAIN SPOTTED FEVER

Edmonton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Calgary	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1
Lethbridge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medicine Hat	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Red Deer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rural	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	2	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2	...	...	2



TABLE 6: COMMUNICABLE DISEASE CASES REPORTED IN 1959 BY SEX, AGE AND PERIOD OF REPORTING (Continued)

SEX		FOUR WEEKLY PERIODS										AGES						Age Not Stated	TOTAL								
		Male		Female		1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	41-44	45-48			49-52	Under 1	1-4	5-9	10-14	15-19	20-39	40-59
RUBELLA																											
Edmonton	117	114	43	18	30	25	28	16	9	10	4	7	13	17	11	10	54	118	35	7	6	1	1	231			
Calgary	61	71	27	14	6	5	14	8	1	1	1	13	21	15	7	5	17	77	33	33	7	6	1	132			
Lethbridge	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	2	2	1	1	1	4			
Medicine Hat	17	14	1	1	1	1	3	5	3	3	3	5	5	1	1	9	7	14	1	1	9	2	1	10			
Red Deer	273	269	47	71	77	59	29	40	18	19	18	37	40	71	16	98	150	197	56	6	9	2	2	31			
Rural																								542			
Total	474	476	119	104	114	91	75	70	31	33	22	64	80	105	42	125	231	411	127	13	15	4	4	24	950		
SCARLET FEVER AND STREPTOCOCCAL SORE THROAT																											
Edmonton	181	218	26	26	25	24	48	44	44	6	7	10	43	53	43	3	100	212	63	5	13	2	1	389			
Calgary	792	741	286	336	348	183	148	66	28	6	3	26	43	39	21	8	131	879	462	31	16	5	1	1,533			
Lethbridge	95	108	11	9	18	21	20	60	34	3	2	3	14	4	4	4	23	122	42	5	4	6	1	203			
Medicine Hat	27	31	10	2	3	3	5	4	1	1	1	3	12	11	14	1	7	34	14	2	1	1	1	58			
Red Deer	26	47	4	6	10	13	8	7	12	6	12	6	7	12	12	14	14	42	17	17	12	39	5	78			
Rural	1,406	1,460	270	338	282	173	388	262	114	64	47	62	176	345	345	50	502	1,355	645	104	123	39	5	2,866			
Total	2,527	2,605	607	717	686	417	617	443	220	79	60	104	285	458	439	61	777	2,644	1,243	147	157	52	8	43	5,132		
TETANUS																											
Edmonton																											
Calgary																											
Lethbridge																											
Medicine Hat																											
Red Deer																											
Rural	1											1						1							1		
Total	1	1										1						1							1		

## TUBERCULOSIS, PULMONARY

Edmonton	39	29	5	3	5	6	3	9	6	2	6	5	4	5	9	.....	.....	2	2	4	31	19	10	.....	68
Calgary	33	20	3	1	7	5	9	1	5	1	5	1	2	1	3	.....	.....	2	2	.....	16	13	12	.....	53
Lethbridge	4	1	.....	.....	1	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	1	.....	7
Medicine Hat	1	6	.....	.....	1	.....	.....	1	.....	.....	.....	1	1	.....	1	.....	1	1	.....	.....	1	.....	.....	.....	7
Red Deer	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Rural	156	160	25	21	27	30	22	29	30	19	24	23	28	19	19	10	43	39	22	34	79	46	38	5	316
Total	234	217	34	25	41	43	34	43	43	22	36	30	36	32	32	11	50	44	28	38	129	80	62	9	451

## TUBERCULOSIS, OTHER AND UNSPECIFIED

Edmonton	10	12	...	1	1	3	2	2	...	...	3	1	3	2	4	1	...	...	...	2	12	6	1	...	22
Calgary	5	2	1	...	...	...	1	1	...	...	1	...	...	2	1	...	...	...	...	3	3	1	...	7	
Lethbridge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Medicine Hat	1	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	1	
Red Deer	36	33	3	9	4	3	3	14	6	1	3	7	5	5	6	2	...	7	6	10	26	13	5	69	
Total	52	49	4	10	5	6	6	17	6	1	7	8	8	11	12	3	...	7	6	12	43	22	8	101	

## TULARAEMIA

Edmonton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Calgary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lethbridge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medicine Hat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Red Deer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rural	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
Total	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...

## TYPHOID FEVER

Edmonton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Calgary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lethbridge	1	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	1	...	2
Medicine Hat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Red Deer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rural	7	4	...	1	4	1	...	4	...	...	...	...	...	1	...	...	...	2	6	1	2	...	...	...	11
Total	8	5	...	1	4	1	...	4	...	...	1	1	...	1	...	...	...	2	7	1	3	...	...	...	13

TABLE 6: COMMUNICABLE DISEASE CASES REPORTED IN 1959 BY SEX, AGE AND PERIOD OF REPORTING (Continued)

SEX		FOUR WEEKLY PERIODS												AGES							TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Male	Female	1 - 4	5 - 8	9 - 12	13 - 16	17 - 20	21 - 24	25 - 28	29 - 32	33 - 36	37 - 40	41 - 44	45 - 48	49 - 52	Under 1	1 - 4	5 - 9	10 - 14			15 - 19	20 - 39	40 - 59	60 and Over	Age Not Stated																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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TABLE 7

INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES  
FOR THE TEN-YEAR PERIOD, 1950 to 1959

Date	Population	Total Cases	Total Deaths	Mortality Rate per 100,000 of population
DIPHTHERIA				
1950 .....	895,000	13	1	0.1
1951 .....	939,501	2	1	0.1
1952 .....	970,000	11	1	0.1
1953 .....	1,002,000	28	3	0.3
1954 .....	1,039,000	35	2	0.2
1955 .....	1,066,000	10	1	0.1
1956 .....	1,123,116	19	0	0.0
1957 .....	1,160,000	39	6	0.5
1958 .....	1,201,000	17	2	0.2
1959 .....	1,243,000	10	0	0.0
MEASLES				
1950 .....	895,000	1,538	8	0.9
1951 .....	939,501	8,204	12	1.3
1952 .....	970,000	3,515	7	0.7
1953 .....	1,002,000	7,260	8	0.8
1954 .....	1,039,000	3,769	6	0.6
1955 .....	1,066,000	7,136	24	2.3
1956 .....	1,123,116	2,047	2	0.2
1957 .....	1,160,000	12,337	16	1.4
1958 .....	1,201,000	3,383	4	0.3
1959 .....	1,243,000	3,956	3	0.2
PERTUSSIS				
1950 .....	895,000	120	3	0.3
1951 .....	939,501	827	7	0.7
1952 .....	970,000	1,105	8	0.8
1953 .....	1,002,000	1,085	12	1.2
1954 .....	1,039,000	842	7	0.7
1955 .....	1,066,000	791	1	0.1
1956 .....	1,123,116	547	3	0.3
1957 .....	1,160,000	859	4	0.3
1958 .....	1,201,000	684	2	0.2
1959 .....	1,243,000	657	5	0.4
POLIOMYELITIS, PARALYTIC				
1950 .....	895,000	143*	7	0.7
1951 .....	939,501	84*	2	0.2
1952 .....	970,000	774*	81	8.3
1953 .....	1,002,000	1,399*	109	10.9
1954 .....	1,039,000	550*	31	3.0
1955 .....	1,066,000	244*	8	0.7
1956 .....	1,123,116	81*	3	0.3
1957 .....	1,160,000	34	6	0.5
1958 .....	1,201,000	22	1	0.1
1959 .....	1,243,000	82	13	1.0
*These figures include cases of Non-Paralytic Poliomyelitis (Viral or Aseptic Meningitis).				
SCARLET FEVER AND STREPTOCOCCAL SORE THROAT				
1950 .....	895,000	2,309*	0	0.0
1951 .....	939,501	2,304*	6	0.6
1952 .....	970,000	3,829	2	0.2
1953 .....	1,002,000	2,173	3	0.3
1954 .....	1,039,000	1,363	0	0.0
1955 .....	1,066,000	741	1	0.1
1956 .....	1,123,116	642	0	0.0
1957 .....	1,160,000	774	1	0.1
1958 .....	1,201,000	1,062	0	0.0
1959 .....	1,243,000	5,132	5	0.4
*These figures were for Scarlet Fever only.				
TYPHOID FEVER				
1950 .....	895,000	13	1	0.1
1951 .....	939,501	37	0	0.0
1952 .....	970,000	16	2	0.2
1953 .....	1,002,000	9	1	0.1
1954 .....	1,039,000	5	1	0.1
1955 .....	1,066,000	8	2	0.2
1956 .....	1,123,116	22	1	0.1
1957 .....	1,160,000	16	2	0.2
1958 .....	1,201,000	6	0	0.0
1959 .....	1,243,000	13	0	0.0



## HEALTH UNITS

**E. S. Orford Smith, M.A., M.B., B.Chir., D.P.H., D.I.H., Director**

The Health Unit Act of 1951 provided the opportunity for all interested municipalities, including improvement districts but excluding cities with more than 50,000 people, to form themselves into suitably-sized groups and to share, in an economical manner, the professional and technical services of a Health Unit team.

The general public health services which are normally offered by a Health Unit include the prevention and control of communicable diseases, the local control of tuberculosis, maternal and child health programs, school health services, health education and mental hygiene programs and a sanitary inspection service. A Health Unit may also provide a dental health service, which is essentially of a preventive character and intended primarily for the benefit of younger children.

Until 1958 the Department paid 60 per cent of the approved operating expenses of each Health Unit, but in that year an amendment to the Health Unit Act provided for the replacement of this method of support by a system of grants. Under the new system each Health Unit was entitled to receive from the Department a grant for general public health services at the per capita rate of \$1.45 less one cent for each thousand of population served, and a grant for dental services at one-fifth of this rate, provided that its participating municipalities agreed to contribute at not less than two-thirds of these respective rates.

Although the new system was preferred by the majority, experience showed that a few Health Units were placed at a disadvantage. A study revealed that the Health Units most adversely affected were those in which unduly high costs of operation resulted from an unusually wide scattering of population. Based upon these findings, a further amendment to the Health Unit Act was passed in 1959, providing for the payment of an additional grant for general health services at the rate of five cents per capita for each person or part of a person by which the population density falls short of 5 per square mile. Six Health Units benefited from this additional grant, at rates varying from five cents to twenty cents per capita.

The 1959 amendment to the Health Unit Act also included provision for the payment of a grant to National Parks, at a rate not exceeding \$1.25 per capita, to enable them to complement their existing public health services supplied at federal expense, and to acquire the scope of general services normally associated with a Health Unit. The result of this legislation was the establishment of two new Health Units, in Banff and Jasper National Parks, in each of which the services of a part-time Medical Officer of Health and a full-time Sanitary Inspector were augmented by those of a part-time Public Health Nurse and a part-time Stenographer-Technician. This raised the number of Health Units from 21 to 23, and the total population served by Health Units to 666,528, or just over 92 per cent of Alberta's population outside of the cities of Edmonton and Calgary.

The following is a list of the Health Units, with the locations of their headquarters, their populations for 1959, their approximate areas and their population densities:

Name of Health Unit	Headquarters	Population	Area in Square Miles	Population Density
Alberta East Central	Stettler	49,039	7,300	6.72
Athabasca	Athabasca	20,838	8,500	2.45
Banff National Park	Banff	3,069	2,600	1.18
Barons - Eureka	Coaldale	27,097	3,000	9.03
Chinook	Fort Macleod	23,730	4,000	5.93
City of Lethbridge	Lethbridge	31,568	12	2,631
Drumheller	Drumheller	29,202	4,300	6.79
Edson	Edson	21,406	9,600	2.23
Foothills	High River	22,395	3,800	5.88
Grande Prairie	Grande Prairie	30,839	19,000	1.62
Jasper National Park	Jasper	2,322	4,200	0.55
Jasper Place	Jasper Place	19,299	6.5	2,968
Leduc - Strathcona	Edmonton	25,235	1,600	15.77
Medicine Hat	Medicine Hat	43,759	10,000	4.38
Minburn - Vermilion	Vermilion	29,084	5,000	5.82
Mount View	Calgary	42,351	5,200	8.14
North Eastern Alberta	St. Paul	31,264	6,000	5.11
Peace River	Peace River	30,785	27,400	1.12
Red Deer	Red Deer	54,829	4,000	13.70
Stony Plain-Lac Ste Anne	Stony Plain	20,256	4,300	4.72
Sturgeon	Edmonton	49,107	3,700	13.29
Vegreville	Vegreville	31,228	3,700	8.44
Wetoka	Wetaskiwin	27,826	3,100	8.98

Each Health Unit is administered by a Board on which the major contributing municipalities are directly represented. The daily operation of a Health Unit and the supervision of its staff, however, are the responsibility of the Medical Officer of Health. The Director of Local Health Services is available to advise Health Unit Boards, to assist Secretary-Treasurers, and to be consulted by Medical Officers of Health, and in this connection during 1959 he made more than forty visits to twenty different Health Units.

Staff appointments are made on the authority of the Health Unit Boards concerned. The following table shows the categories of staff, and the number of established positions in each category at the end of 1959, with corresponding figures for the four preceding years:

Category of Staff	1959	1958	1957	1956	1955
Medical Officers .....	23	21	20	18	17
Dentists .....	3	3	3	1	1
Public Health Nurses .....	170	108	98	82	70
Sanitary Inspectors .....	31	28	26	24	19
Dental Assistants .....	3	3	3	1	1
Stenographer-Technicians .....	42	32	29	25	22
Secretary-Treasurers .....	23	21	20	18	17

Five new Medical Officers of Health were appointed to Health Units during the year under review; a course of orientation was arranged for each one, and wherever possible this included a period of attachment to a well established Health Unit under a Medical Officer of Health of considerable experience.

One Health Unit Dentist obtained his D.D.P.H. from the School of Hygiene at the University of Toronto, and one Medical

Officer of Health was granted leave of absence by his Health Unit to take the D.P.H. course there. Both these staff members received bursaries from federal Professional Training Grants, on the Deputy Minister's recommendation.

The annual Health Unit Conference was held during the first week of November, and provided an opportunity for Board Chairmen (or their representatives), Medical Officers of Health, Dental Officers and Secretary-Treasurers to discuss problems of common interest. The conference covered a large variety of topics, some of importance to administration, others strictly professional. Numerous resolutions involving policy were submitted for the Minister's consideration, and some of these were noted for possible legislative action.

## PUBLIC HEALTH NURSING

**Dorothy McPhail, B.Sc., M.P.H., R.N., Director,**

**Janet Bailey, P.H.N., R.N., Acting Director**

Again it is my pleasure to report the activities of the Public Health Nursing Section, Local Health Services Division, for 1959. For the greater part of the year, the Acting Director was responsible for the work of the Public Health Nursing Section, since the Director was absent for educational purposes. The major responsibility of this section is the direction and supervision of twenty-seven municipal nurses. Counselling, placement and guidance are also offered to all public health nurses in the Province and particularly to those in Health Units.

Throughout the year most Health Units have had their full complement of staff but we continue to have difficulty locating nurses for the northern communities.

During the year eight nurses were appointed to the Municipal Nursing Service, six nurses resigned from the service and Miss A. D. Engelcke retired following twenty-five years of devoted service with the Department of Public Health.

Several Municipal Nursing Districts were without nurses during the year due to the difficulty in obtaining suitable well qualified candidates for these positions.

The Foremost Municipal Nursing Service was officially closed at the end of March, 1959, since a resident physician established himself in the community. We wish to express our sincere appreciation to the County of Forty Mile No. 8 for helping to support a community nursing service during the years it was so urgently needed.

### FIELD TRIPS

The Acting Director made field trips to twelve Municipal Nursing Districts and five Health Units. Supervision and counselling of the nurses were offered in all of these centres.

Interviews were held by the Nursing Director with twelve staff nurses in the Central Office in Edmonton.

### CONTINUING EDUCATION

A refresher course in paediatrics and obstetrics for physicians and public health nurses was held in February under the joint sponsorship of the Alberta Division of the Canadian Medical Association and the University of Alberta Paediatric and Obstetric Departments. This conference was well attended by representatives of the Health Units as well as by all Municipal Nurses since it took the place of their annual Spring Conference.

Staff conferences for the discussion of policies and for continuing education were held by most of the Health Units and where possible the Municipal Nurses were included in these study groups.



## NEW APPOINTMENT

On the return of the Director of Public Health Nursing, the Acting Director was appointed as Nursing Consultant, Maternal and Child Health, under the guidance of the Director of Local Health Services. The Nursing Consultant will work closely with the public health nurses to assist them in improving their nursing services in the area of maternal and child health.

## ANNUAL MEETINGS

The annual meetings of the Alberta Division of the Canadian Public Health Association and the Alberta Association of Registered Nurses were well attended by nurses from both the Health Units and the Municipal Nursing Service. The Acting Director was able to be present at one of these meetings.

## PUBLIC HEALTH NURSES' UNIFORM

An interesting event took place in 1959 when nurses in Health Units adopted a standard uniform for the first time. The Uniform Committee, elected by the Nurses' Section of the Alberta Division of the Canadian Public Health Association, prepared the regulations regarding the uniform. It consists of a medium blue hat, suit and top coat with the added feature of a distinctive blue and silver lapel and hat pin. This uniform now replaces the older style designed for the Municipal Nurses about ten years ago. Complimentary reports concerning the new uniforms have been received from many districts.

The record of nursing service carried out by the Health Unit nurses will appear in the annual reports of the Health Units. The statistical records attached to this report refer only to the nursing service accomplished by the Municipal Nurses.

In conclusion I should like to acknowledge the co-operation of the nursing staff, local nursing service committees, Health Unit Boards and staff, and other Government Departments, which has added to the progress of the Public Health Nursing Section.

This report is respectfully submitted.

### NUMBER AND TYPES OF CALLS—27 MUNICIPAL NURSING DISTRICTS

(19 I.D.'s)  
( 8 M.D.'s)

Number	Treatment Consultations	20,425
Number	Treatment Consultations Public Welfare Cases	914
Number	Treatment Consultations Treaty Indians	278
Number	Miscellaneous P. H. Consultations	9,941
Number	Antepartum Consultations	1,182
Number	Infant and Pre-school Consultations	6,240
Number	Treatment Home Visits	2,736
Number	Treatment Home Visits to Public Welfare Cases	670
Number	Treatment Home Visits Treaty Indians	72
Number	Miscellaneous P. H. Home Visits	2,765
Number	Communicable Disease Home Visits	1,166
Number	T.B. Home Visits	254
Number	V.D. Cases Found, Treatment and Home Visits	81
Number	Maternal Welfare Home Visits	522
Number	Infant and Pre-school P. H. Home Visits	1,270
Number	Deliveries	30
Number	Abortions	18
Number	Cases sent to Doctor or Hospital	2,686
Number	Deaths	14
Number	Cases of Communicable Disease	1,312
Number	Letters and Telephone Calls	9,463
Number	Newspapers or Radio Publicity	252
Total	Fees Collected	\$18,940.61
Cost of	Drugs and Surgical Supplies	\$15,215.92

## SUMMARY OF SCHOOL REPORTS—27 MUNICIPAL NURSING DISTRICTS

(19 I.D.'s)  
(8 M.D.'s)

Number of Visits to Schools .....	459
Number of Pupils Inspected .....	7,997
Classroom Talks .....	151
Number of Consultations with Teachers .....	678
Number of Consultations with Parents .....	516
Number of Pre-school Children Examined .....	196
Number of Doses of Diphtheria Toxoid .....	1,513
Number of Doses of Tetanus Toxoid .....	1,496
Number of Doses of Smallpox Vaccine .....	1,862
Number of Doses of Whooping Cough Vaccine .....	338
Number of Mantoux and Patch Tests .....	1,421
Number of Doses of Polio Vaccine .....	761
Number of Films Shown .....	24

## LECTURES, CLINICS, CLASSES—27 MUNICIPAL NURSING DISTRICTS

(19 I.D.'s)  
(8 M.D.'s)

Number Lectures to Organizations .....	40
Number Films Shown .....	75
Number Generalized Clinics .....	668
Number Child Welfare Clinics .....	388
Number Home Nursing Classes .....	33
Number First Aid Classes .....	10

IMMUNIZATION WORK DONE AT OFFICE OR CLINICS  
27 MUNICIPAL NURSING DISTRICTS(19 I.D.'s)  
(8 M.D.'s)

	Number of Doses
Number Immune Serum Globulin .....	408
Number Polio Vaccine .....	10,650
Number Diphtheria Toxoid .....	5,898
Number Pertussis Vaccine .....	5,677
Number Tetanus Toxoid .....	5,829
Number Smallpox Vaccine .....	1,806
Number Typhoid Fever Vaccine .....	176
Number Patch or Old Tuberculin Tests .....	1,077
Number Asian Flu Vaccine .....	20
Other Vaccines .....	264

## MATERNAL AND CHILD HEALTH

**Janet C. Bailey, R.N., P.H.N., Nursing Consultant**

This subdivision of the Division of Local Health Services came into existence early in the fall of 1959. Immediately after the appointment was made it was arranged through a Federal Health Grant project for the consultant to spend three weeks observing Maternal and Child Health Programs in a few selected places. These places included the Department of National Health and Welfare (Child and Maternal Health Division), the Ottawa Health Department, the Ontario Department of Health, the Toronto Health Department and the Saskatchewan Department of Public Health. This opportunity proved most helpful.

Attendance at the Maternal and Child Health Advisory Committee Meeting held at the Department of National Health and Welfare, Ottawa, on September 21 and 22, 1959, was also arranged.

The University of Alberta, through an Extension Course, presented a course on the Care of the Premature Infant in October and November 1959. The Nursing Consultant attended approximately one-third of the lectures given.

Plans have been made to spend two or three days in each Health Unit during 1960 to observe the Maternal and Child Health Program presently being carried out. By doing this it is expected to gain knowledge that will be useful in drafting a definite program in this field of public health nursing.

## DENTAL HEALTH SERVICES

**C.W.B. McPhail, B.Sc., D.D.S., M.S.D., Director**

A Director of Dental Health Services was added, for the first time, to the Division of Local Health Services staff with the appointment of Dr. C. W. B. McPhail on August 1st, 1959. His appointment is shared with the Dental Faculty, University of Alberta as Associate Professor of Public Health and Preventive Dentistry. The function of this service is:

- (a) To encourage, financially aid and assist with the planning and carrying out of a comprehensive dental public health program in all local Health Units and City Departments of Health throughout the Province.
- (b) To advise and deal with matters pertaining to dental public health.
- (c) To serve as a liaison for the Department with the dental and other health professions, and other groups or individuals interested and concerned in dental health.

The initial report of this service will deal largely with the background and recent planning of dental health in Alberta; subsequent reports will deal largely with actual programs, results and future planning.

An amendment to The Health Unit Act in 1952 provided for the employment of part or full-time dentists and dental assistants by local Boards of Health. At this time dental service costs were budgeted for in the same way as other Health Unit operating expenses, the Department paying 60% of an approved budget which covered equipment, supplies, rent, travel and subsistence, and salaries up to the level recommended by the Government's salary survey committee. A 1958 amendment to The Health Unit Act provided for a separate dental health grant (equivalent to one-fifth of the general health services block grant) available on request to local Health Units. This grant (as with the general services block grant) must be matched locally by at least two-thirds of its amount. Any amount spent over this basic budget must be contributed locally. As can be seen from this the decision to provide a dental program in a Health Unit, and the basic type of program to be provided, is the decision of the local Health Unit Board. Dental programs under these arrangements have been operating in various Health Units from time to time, but never more than two or three in any one year.

The first dental health program to be operated by a rural Health Unit on a full-time basis was established at Lamont in the summer of 1943 and continued in operation until mid-summer of 1946. The Barons-Eureka Health Unit started a part-time program in 1954 and has continued with a full-time program since 1955. Jasper Place began with a part-time program in 1957 and continued with a full-time program shortly thereafter. Sturgeon Health Unit has had a dental health program operating on a full-time basis continually since 1957. With these exceptions no full-time local Health Unit program has operated continuously for more than two years.



The Barons-Eureka program concentrates largely on education - treatment services to the grade two children. Recently some interesting figures were provided indicating a lower decay rate in the naturally occurring water fluoride areas as compared to the non-fluoride areas.

Jasper Place Health Unit operates a very comprehensive preventive dental program, providing education, examination, consultation and referral services to the younger age groups, as well as a topical fluoride program to grade one and pre-school children. Treatment services including examination, X-rays, extractions, fillings, space maintainers and also limited preventive orthodontic appliances are given to selected cases on the basis of need. Statistical data were provided to the Canadian Dental Association.

Sturgeon Health Unit was forced to limit its education - treatment services to pre-school children in order to keep up with the demand. Four other Health Units budgeted for a full-time dental program but were unable to fill the appointments.

Both Calgary and Edmonton provided an educational, examination and referral program with limited treatment services provided on a basis of greatest need. These cities have not hitherto been eligible for a specific grant for dental services.

Dental diseases cannot be classed with the "killing" diseases such as heart disease and cancer, nor with the seriously crippling diseases such as polio and arthritis; nevertheless, death results occasionally, and all too frequently a physical, emotional or social handicap is the result of untreated dental disease. Dental disease in most instances, unless prevented or controlled, continues throughout life, so that an important economic aspect is involved. And then there is the fact that in the civilized world it has become man's most common affliction. This may be due partly to:

- (a) heredity.
- (b) our food and eating habits which favour a continuing high attack rate of dental disease.
- (c) the fact that, for one reason or another, only one person in three, approximately, receives adequate dental care in Canada.
- (d) the shortage of dentists in some areas.
- (e) the fact that recommended proven and effective measures of prevention and control, either for individual or community use, are as yet not being generally employed.

For whatever reason, dental health has certainly become a major public health problem. And for this reason it can be no longer considered the sole responsibility of the dental profession; they must provide guidance and leadership, but it is a responsibility that must be shared by the health professions and official bodies at all levels, just as other health problems are a shared responsibility.

Positive action has been brought about in Alberta by a continually increasing interest and demand over a period of years, but it was undoubtedly precipitated by the activities of a group of missionary dentists operating in the province. Discussions were held with various members of responsible and interested

groups. It was generally agreed that the overall plan in its initial stages should consist of three phases:

- (a) A program to make available basic dental services in the rural areas of the province where such services are difficult to obtain, in order to meet the apparently urgent demand for such services.
- (b) A program to increase the supply of services by increasing training facilities, recruitment activities and considering facilities for the training of additional dental auxiliary personnel.
- (c) A need to reduce the continuing high attack rate of dental disease on a long term basis by (i) encouraging the general use of the proven and effective preventive measures that are available on an individual or community basis today, and (ii) continuing support of research.

Some of these steps were already in progress, others were started before the end of 1959. For example:

- (a) A program is being arranged whereby transportable dental equipment will be made available by the Department of Public Health to a roster of volunteer dentists from the Alberta Dental Association who have volunteered to visit communities where there was an urgent demand for services and to make their services available in that community on a private practice basis.
- (b) Realizing the shortage of full-time dentists in Health Unit services the Alberta Dental Association has volunteered to provide a roster of dentists to work in Health Unit preventive dental programs on a part-time, short term basis until full-time services are available. It is hoped that both of these programs will be operating in 1960. The Dental Faculty, University of Alberta arranged for third-year dental students to work in Health Units only, and providing only preventive services during the summer recess period between the third and fourth years of dentistry.
- (c) Five additional Health Unit Boards budgeted for the services of a full-time public health dentist.
- (d) Plans were completed and approved in 1958 for a new dental school and renovation of some existing space at the Dental Faculty, University of Alberta. These new facilities will provide for the training of fifty students in each year of dentistry. The present facilities provide only for a maximum of thirty students per year.
- (e) The Alberta Dental Association has been carrying out a recruitment campaign, attempting to interest suitably qualified high school students to make a career in dentistry.
- (f) Several meetings have been held between the Department, the University of Alberta and the Alberta Dental Association concerning the possibility of training additional dental auxiliary personnel. It is expected that Legislation dealing with the training of a new type of dental auxiliary personnel will be presented in the 1960 session.

## HEALTH EDUCATION

C.C. Evoy, B.Sc., Director

### TOURS AND MEETINGS

Each year in planning a program for health education some consideration is given to an improvement in the quality of meetings. Aside from the topic and presentation this is largely determined by good organization and an effective pattern. In this connection the cooperative assistance of public health field staff, education officials, executive members of local organizations and school teachers can prepare an environment which is conducive to a successful meeting. This year with the active participation of these auxiliary groups the quality of the meetings has improved. The general design and structure of the meetings has changed form. Through different approach techniques there has been more audience involvement with resultant general satisfaction of accomplishment. This observation is based on personal judgement and of course is open to question.

Health education of the people may be classified into general public, school, home and school, public health staff and students. To consolidate the educational program for most efficient use of time it was essential to plan tours which would distribute services as equitably as possible over the province. The form this program took was designed for workshop, convention, conference, in-service training, and professional instruction.

The year opened with an orientation lecture to the public health nurses in training at the University of Alberta. The purpose of the talk was to acquaint these students with the services of the Division of Health Education.

The program of the Department of Public Health was of interest to many organizations. Six meetings were attended, by staff from Health Education, where a questionnaire, film, pamphlets and discussion were used to emphasize the value of provincial health services and to make interesting an otherwise dull subject. The documentary film shown was screened at twenty-four other meetings sponsored by local health authorities.

In June at Kinuso co-ordinators of the health education program in schools along the shores of Lesser Slave Lake met to evaluate the year's work in health education, to discuss the advisability of a continuing program and the need for a second teachers' institute. The reports from committee members were favorable towards the project and approved a tentative program for the fall institute.

The expanded program in health education introduced into the schools contiguous to Lesser Slave Lake in 1958 was re-opened by the local school Superintendent O. Fadum with an institute of thirty-five teachers on October 2nd at Kinuso School. The purpose of the gathering was to orientate new elementary teachers to the program, to stimulate the continuing staff and to appraise the work of the preceding year through sectional discussion and display of completed work. Discussion revealed some

weaknesses in the plan which could be corrected only by changed attitudes of the community and by additional physical equipment for some schools. However, tangible results of the program for the previous two terms were encouraging enough to stimulate the staff to a renewed effort for another year.

The Director of Health Education served as a consultant at both the co-ordinators meetings and the institute.

Visits were made to a number of health units to discuss educational matters with the medical officer of the unit and his staff. Topics given consideration were as follows:

1. Newsletters to teachers.
2. Health education in schools.
3. Safety education in the schools.
4. First aid instruction in schools by nurses.
5. Opportunity rooms for the children with I.Q. 50 to 70.
6. Teacher-psychologist in the school system.
7. The relationship between the home and the school concerning health practices.
8. In-service training in health education.
9. Health education literature displays.
10. Utilization of films by the health unit staff.

Most units were working closely with the schools in the areas listed with the exception of first aid teaching. However instruction in this subject for teachers, by the medical officer, would be available when required.

## **Schools**

Each year opportunities are provided for visits to Alberta schools. To each school visited this year we offered a special service; to the pupils of elementary grades a lesson on safety and for the teacher a demonstration of techniques in teaching. For all teachers of health from grade I to X inclusive there was demonstrated a series of three-panel displays of health education aids classified according to grade and unit. These materials include samples of free literature, films and current health references. Consultation and discussion concerning the curriculum and use of the health education media are considered essential to a better understanding of our service.

Thirty school visits were made in 1959. More than 150 teachers and approximately 2,000 pupils were in attendance.

## **University**

Commencing this year the Director of Health Education delivered thirty-six lectures to the students of the Faculty of Education at the University of Alberta, Edmonton. These lectures depicted the health education services available to teachers and pupils in Alberta schools and the local public health program provided through the health units. A total of over five hundred student teachers were in attendance.



### Workshops

Teaching implies the transmission of ideas from person to person by instruction and training. In-service-training of public health staff in the use of audio-visual equipment is a continuing essential service which makes full use of teaching methods. Demonstration in the art of teaching can help prepare public health staff for the health education of the public. Instruction on film utilization is combined with training in the use of audio-visual equipment. New health unit members seek help in this area of their work. Through this training provided by Health Education and the cooperation of other members of the health unit staff it is possible to keep all field staff abreast of education methods.

Three workshops on film utilization were conducted during 1959.

In the fall of the year a helping service was given to one local school system. A testing program for retarded children was conducted by school authorities. Health Education was called upon to administer a number of the tests. The assistance was given in the interests of child health.

### Conferences

Early in the year a conference on the Curriculum Guide in Health and Personal Development was held by the Department of Education to consider recommendations to be submitted to the Cameron Commission on Education. The Department of Public Health was represented at the meeting by the Deputy Minister of Health and the Director of Health Education.

The sanitary inspectors of the province held a refresher course at the University of Alberta during the third week in April. The director of health education conducted a half-day workshop on methods in public health education for this group. Assisting in this program was Mrs. E. Colborne teacher-educator on the staff of Health Education.

In May a representative from this branch attended a Junior Red Cross Committee meeting in Calgary. Then, in June, at the annual conference of this association the Director of Health Education was present as a guest committee member. He participated in the program as an observer and commentator.

Finally in late fall at the Health Unit Conference in Edmonton a representative from health education was in attendance at a number of the sessions. Tape-recording equipment from the division was supplied for a verbatim report of the discussions.

### Displays and Exhibits

A complete set of new displays was designed and prepared for use in teacher education. These three-panel units, of which there are nine, have been used to demonstrate for the teachers, health literature and films available to the schools of the province. Once again, hundreds from the teaching profession had an opportunity to become acquainted with this educational service. The sequence to a demonstration of this nature was a large number of requests for health literature and films.

The theme for the health display at the Edmonton Exhibition was "Safety In The Home". A fitting exhibit from National Health and Welfare, Ottawa, was the central display. Around this and in keeping with the general theme were arranged provincial facts and statistics on home safety.

Other divisions showing were Mental Health and Nursing Aides. In connection with the latter the projectograph from Health Education was used to show slides on the training program in this branch of nursing.

At the Alberta Federation of Home and School Convention the division placed a health display which was manned daily by Health Education staff members. Items of interest were health literature samples and service information.

### **Conventions**

Representatives from Health Education prepared a display of health literature for a number of teachers' conventions. Three different programs were attended in Edmonton. Other centres visited were Bonnyville, Red Deer and Calgary. Teachers of health present at these conventions had an opportunity to examine and discuss health materials related to the teaching of this subject. It is estimated that three thousand teachers were in attendance at these conventions.

### **EXTENSION ACTIVITIES**

To reach the people of this province with ideas which may modify their thinking and improve their way of life requires different types of media. In health education the methods employed are effected through literature, films, talks or lectures and publicity.

Health literature has most appeal when it is displayed and associated with some group discussion. Organizations of parents meeting in convention halls so that they may become acquainted with the literature available concerning their problems is of value. Delegates at conventions may be impressed with services and information in the health program of the province. These contacts are valuable to the communities represented. Through them health extension service can become a part of the education of the people.

At professional gatherings of teachers, nurses, sanitary inspectors and medical officers of health, a speaker, display, film or health literature may be required. The services available from Health Education provide for assistance of this nature.

Local associations of the Home and School Federation draw upon this division for program assistance on health topics. Again the call can be for one or more of the extension services. Other organizations which use this help are women's groups, churches and clubs.

### **HEALTH LITERATURE DISTRIBUTION**

Each year we note changes in patterns of interest in the requests for health literature. During the past twelve months there has been an upsurge in the demand for posters of all types. The greatest interest has been shown by the elementary schools.

To name the most popular by topic, the order of preference for health literature is colds, safety, dental health, tuberculosis and sanitation.

The mimeographed materials prepared by Health Education for university students and teachers of the elementary and junior high school were designed to give help in health teaching generally and specifically safety and dental health.

Child care literature has been in strong demand from health units in the rural areas and by city health departments. Requests from other organizations for this material have been fewer in comparison to previous years.

The schools of the province have received from Health Education for teaching purposes the following publications: Alberta's Health Services Program, Communicable Disease pamphlets including the Regulations, and pamphlets on Sanitation, Dental Health and Safety.

A healthy but moderate interest has been displayed in Industrial Health publications.

### FILM LIBRARY

Some years ago a dramatic film on mental health services in Alberta was produced by the Department of Economic Affairs. The film has served a good purpose in providing a visual concept of the mental health program to the people of the province and in serving as a training film for new staff entering mental health work. However the film has fulfilled its primary purpose and will be replaced in 1960 by a documentary film depicting mental health services including changes since 1949 in treatment and accommodation. The work on the new film will commence in January of the new year and should be completed by late summer.

The film library has a complement of 568 separate titles, 440 of which are 16mm films with the balance in 35mm filmstrips. The total is a fluctuating number resulting from periodic withdrawal of worn prints and replacement. New films added to the library in 1959 numbered 32. Of these, 25 were new titles - 16 films and 9 filmstrips. Replacements of prints numbered 7. Preview committees screened forty-two new films from which approximately forty percent of the titles were recommended for purchase.

Health films shown in the past year numbered 10,500. The hospital nursing schools rank first on the list of users, followed closely by the schools, municipal nurses and health units. The number of requests from groups like the Home and School locals has fallen but this is compensated through an increase in the number of films shown to parent-teacher groups by local health authorities. An estimated total of 546,450 persons viewed health films from the division in 1959.

## NUTRITION SERVICES

**Elva M. Perdue B.Sc. (H.Ec.), B.Ed., Nutritionist**

The main purpose of Nutrition Services of the Division of Local Health Services of the Department of Public Health is to help build and maintain the health of the people of Alberta through the promotion of good nutrition practices. This is done by providing consultant and educational services to public health personnel, other government departments, hospital personnel, schools and to lay groups. The staff consists of one nutritionist and one part-time stenographer.

### PUBLIC HEALTH PERSONNEL

Consultant service is provided to public health nurses at the local level by direct visits, office visits and through direct assistance with specific programs. For example, the Nutritionist attends Child Health Conferences and prenatal classes but only on request and for a particular purpose - showing a film, presenting a demonstration or preparing a special display.

The public health nurse is especially concerned with nutrition education in family counselling, school health services, child health conferences, and prenatal classes as evidenced by the request for many and varied types of information, program assistance, publications, posters, exhibits and films.

As in previous years, the nutritionist was responsible for part of the orientation of medical officers of health, municipal nurses and some health unit nurses coming on staff. This includes teaching, reviewing aids that are available and illustrating ways in which the services of the nutritionist can be utilized in the general public health program.

Industrial nurses and Victorian Order nurses again requested assistance in planning nutrition programs and in obtaining publications and teaching aids.

Nine issues of the mimeographed release Nutritionally Speaking were prepared throughout the year for distribution to public health personnel, industrial nurses, Victorian Order of Nurses, home economics and health teachers. This material is intended to provide information on recent advances in the field of nutrition.

For the second year, a course in Normal Nutrition was given to the student nurses at the Provincial Mental Hospital, Ponoka. This course was comprised of 20 hours of lectures and 14 hours of laboratory given over a three week period.

The nutritionist was again available to assist professional personnel in all Divisions of the Department with problems relating to nutrition, some of which have entailed considerable research.



## OTHER GOVERNMENT DEPARTMENTS

The nutritionist continued to cooperate actively with provincial and federal government departments in an exchange of information, ideas, materials, etc. At the provincial level, there was a continuing liaison with the Supervisor of Home Economics and the Dietitian at the School for the Deaf in the Department of Education and with the Supervisor of Women's Extension Service and District Home Economists in the Department of Agriculture.

At the federal level, a close working relationship was maintained with the Nutrition Division of the Department of National Health and Welfare, the Dietitian in the Foothills Region of Indian and Northern Health Service, the Consumer Section of the Department of Agriculture and the Home Economics Section of the Department of Fisheries.

## HOSPITAL PERSONNEL

During the late fall of 1959, the nutrition consultant service to small hospitals was changed. This will in future be provided by the Alberta Hospital Association. However, during most of the year, assistance with food service problems was given as usual to small institutions, including municipal hospitals, homes for the aged, nursing homes and children's homes.

Implementing this service before it was discontinued, the nutritionist visited three municipal hospitals at the request of the hospital administrators. These visits required a combined total of fifteen days of observation. After each dietary department was surveyed, a detailed written report was prepared and a copy sent to the hospital administrator. The reports are designed to show findings and make specific recommendations.

In addition to numerous telephone calls, the nutritionist also received requests from 22 hospitals for assistance and information which was forwarded by letter as quickly as staff and time permitted. Further, to assist the problem of menu planning, seven issues of the mimeographed release, "Institutional Supper Menus" were prepared and distributed before it was discontinued in November.

## SCHOOLS

Work in the schools was directed under three main channels - animal feeding demonstrations, food surveys and school lunches.

Animal feeding demonstrations continued to be carried out in the schools as a graphic illustration of the value of good eating habits. A total of 20 such demonstrations were conducted in schools throughout the province during the year. The animals are provided free by the Department. In carrying out the demonstrations, efforts are made to stimulate interest in the community and often the results are discussed at a meeting of the Home and School Association.

Nutrition Services makes food survey records available to the teachers and assists with the evaluation of the records. The teachers use the result as a guide in their teaching. Teachers



have also been advised on nutrition materials that are available on request in quantity and those that are available on loan.

Work on school lunch programs was continued as usual. Efforts were made to stimulate interest with the result that programs that had previously been setup were not only continued but new programs were initiated. The emphasis has again been on the packed lunches brought from home and the problem of a nourishing beverage at noon is gradually being overcome as milk dispensing machines in the larger schools become more common.

### LAY GROUPS

Since the nutritionist is a consultant, part of her time is spent answering questions, giving information and solving problems for individuals. Inquiries regarding all phases of nutrition are received from the lay public and Nutrition Services continues to promote good eating habits through work with community groups and the general distribution of teaching aids such as leaflets, booklets, pamphlets, posters, films, filmstrips and reference materials.

There was an increase this year in the number of requests for assistance with budgets and special diets. Talks on various aspects of nutrition were given to eight lay groups and five home nursing classes received assistance with courses on nutrition in health and disease.

### MISCELLANEOUS

Pre-planning for food service at summer camps and assistance to food service personnel throughout the camping period was again given, but as the number of requests was tripled in 1959, it has become impossible to give detailed assistance.

Library service was available to public health personnel, to hospital staffs and to the general public through the small library maintained by Nutrition Services.

The nutritionist frequently assisted with nutrition problems encountered by the Visiting Homemakers.

The objectives and activities of Nutrition Services were outlined to key groups of students, including teachers and public health nurses at the University.

The nutritionist attended the annual meeting of the Dominion - Provincial Nutrition Committee and the Canadian Council on Nutrition in Ottawa.

## ENTOMOLOGY AND VECTOR CONTROL

J. H. BROWN, B.Sc., M.Sc., F.A.P.H., M.R.S.H., *Director*

The Division of Entomology and Vector Control deals with insect-borne diseases and reservoirs of human infection in native small mammals, with particular attention being paid to Rocky Mountain Spotted Fever, Colorado Tick Fever, Bubonic Plague, Tularaemia, Encephalomyelitis and other less known conditions.

Other insect problems, such as fly and mosquito control, insecticides, insect infestation in food-stuffs and insect pests of institutions, also fall within the work of the Division. Furthermore, a considerable amount of time is devoted to determining the distribution of insects, ticks and mites that are involved in the transmission of human diseases.

### TICK SURVEY

The Rocky Mountain Spotted Fever tick, *Dermacentor andersoni* is well-established in Alberta. Its known and supposed range embraces all of that part of Alberta south of a line from Empress west to Calgary, and thence north and west in the foothills and mountains north to Fort St. John, B.C.

*Collections*—On account of delays in field work only 12 collections were made in 1959, with 164 ticks being collected. Of these 88 were removed from hosts and 76 were by drag.

*Rocky Mountain Spotted Fever*—During 1959 one case of Rocky Mountain Spotted Fever involving a 23 year old white male occurred in the Medicine Hat area. This case was diagnosed on a clinical basis when the young man took ill at Lacombe. As he had been treated with antibiotics serological proof could not be obtained. However, a field study proved that he had been in a known Spotter Fever area and that he had been bitten by ticks. He had never been vaccinated against Rocky Mountain Spotted Fever. He made a good recovery but still complained of some weakness two months after the illness.

*Vaccinations*—During 1959 a total of 1,668 doses of Rocky Mountain Spotted Fever vaccine were given in the Medicine Hat, Manyberries and Ralston areas.

*Tick Paralysis*—One case of Tick Paralysis involving a young white female occurred in Calgary. This child had been admitted to hospital as a possible Poliomyelitis case because of a sudden onset of paralysis of the lower limbs. On admission to the hospital a thorough examination was carried out and, due to the fact that this Division has repeatedly stressed the necessity of always considering the possibility of Tick Paralysis, particularly during the early spring and summer, the doctor and nurse in attendance explored the body surface and found a female *Dermacentor andersoni* attached at the hair line on the left side of the neck. The tick was removed and five days later the child had completely recovered.

The field study of this case proved that two days previous to the onset of the paralysis the child had returned from visiting in the interior of British Columbia where "tick paralysis" ticks are present. An examination of the specimen showed that the female tick involved was a *Dermacentor andersoni* and had been feeding for a period of five to seven days.

### PLAGUE SURVEY

Two very large areas of Plague infection, one centering on Hanna and the other on Brooks exist in Alberta; in both of these areas plague-infected Ground Squirrels (gophers) and plague-infected Ground Squirrel fleas are present in large numbers.

There are 14 species of fleas in Alberta that are capable of transmitting plague from infected animals to man, fortunately most of these species are not very numerous, and in many cases their distribution is limited. In 1959 a total of 151 fleas and 48 tissue specimens were collected in various areas from 162 small mammals, but no positives were found, however, it should be obvious that the lack of positives does not necessarily mean any decrease in the amount of infection in fleas and gophers. And the fact that human deaths occur every year in the plague areas in the United States, indicates that bubonic plague is still a serious problem.

### FLY CONTROL

Fly control still presents a considerable problem both in cities and small towns. However a program of Fly Control within Health Units was developed during 1959, based mainly on basic sanitation and proper garbage disposal. This program was developed in this division and worked out on a pilot-basis before being recommended. The program appears to have been well accepted.

### MOSQUITO CONTROL

Mosquitoes did not present a very serious problem except in the irrigation areas of southern Alberta. However they were present in sufficient numbers to constitute a nuisance at most of the summer resort areas. There is very great interest in all parts of the province for local mosquito control programs, but, unfortunately, mosquito control is usually expensive and ineffective unless a definite long range program is undertaken. When this is done with the cost being spread out over a period of years an exceptionally cheap and effective control can be had.

### SCHISTOSOMIASIS

*Schistosoma dermatitis* is becoming quite a serious problem in many of the new lake areas that are being opened up. This condition is caused by the penetration of the skin by a small fork-tailed parasite (*cercariae*.) In man it always follows bathing or swimming in infested lakes or ponds and is characterized by a localized area of very itchy weals.

Snails, which are the hosts for the *cercariae*, are sensitive to copper, and small quantities of it in the water will poison them.

However, this same chemical is also toxic to fish and unless properly applied can have a very adverse effect on the fish population.

An investigation into the biological, epidemiological and immunological aspects of *Schistosoma dermatitis* was undertaken with the investigation to be in the form of a two-year pilot experiment. The work is being done under the auspices of the Department of Public Health, with the assistance of an Immunologist and Dermatologist.

The whole investigation will involve field study, laboratory experiments and large-scale testing of human subjects. It is under the direction of a board composed of—

T. H. Aaron, M.D., Immunologist

J. H. Brown, M.Sc., Entomology and Vector Control, D.P.H.

\*R. B. Miller, Ph.D., Department of Zoology, Univ. of Alberta

P. L. Rentiers, M.D., Dermatologist

\*Since deceased.

The laboratory work is being done at the Department of Zoology and the financing is being done by the Department of Public Health, through a Federal Health Grants Project. Other assistance is provided by the Department of Zoology and by this Division.

#### LEECHES

Reports of leech infestations came in from many Alberta lakes during 1959 and appropriate advice was given. It is evident that leeches will become a problem at many of the resort areas being now developed, particularly in regard to wading areas.

#### HARVEST ITCH

Harvest itch is a skin condition somewhat similar to scabies and is caused by mites. The mites involved are normally on such vegetation as grain and grasses and are accidentally transferred to the person of harvesters and others handling such materials. Necessary advice was given to Health Units and local practitioners during 1959.

#### INSECTICIDES

Vapourizers are mechanical devices for releasing the fumes of lindane and other insecticides by means of electrical heating elements. Installation regulations under the Canadian Standards Association are used to control their use in food-handling establishments.

In view of the fact that Insecticides, and Pesticides generally, are toxic materials the Division is being very cautious in making recommendations unless there is sufficient evidence that the materials will be used by competent persons in a proper manner. It should be a matter of great concern when it is realized that there is a vast array of "poisons" now present in every household.



There is ample evidence now available to indicate that some regulatory measures regarding the use of pesticides should be introduced.

### POISON CONTROL

During 1959 the recommendations made by the Poison Control Advisory Committee were put into effect to the extent that the cardwheel system was established and the order for the printing of the necessary cards and supplies of the cardwheel was let. It is hoped to have this program in operation early in 1960.

### Q FEVER

In 1959 the Q Fever Survey demonstrated the presence of the organism in dairy herds in various parts of the province. Further work is being carried on to evaluate the importance of these findings and also to see if any human infection exists.

### LABORATORY

*Insect Identification*—During 1959 numerous specimens of insects from different products and places were received for identification. Many of them were insects from tropical and semi-tropical areas and had been rarely found in Alberta. From their numbers, and as they are plant-eating insects, it would appear that they may be brought in in van-loads of fruit and vegetables. After they were identified suitable information for control measures was supplied to the person from whom they were received.

*Insect Collection*—Good progress was made in arranging the collection of insects and ticks injurious to human health.

### STAFF

On account of the increased amount of field investigational work, and the increased demands from the public, the Health Units, other divisions of this department and other departments in the Government for competent and reliable professional advice and assistance in the various fields of activities falling within the scope of the Division, a full-time Biologist in the person of Mr. A. A. Kirdeikis, B.Sc., was added to the staff on September 15.

The summer field investigations had been carried on by M. S. Brett, B.Sc., and K. E. Glover, B.Sc., both of whom returned to the University of Alberta in September to resume their studies in the fields of Medicine and Dentistry respectively.

The usual educational work in regard to the control of insect-borne diseases was carried out by means of radio, motion pictures, newspapers and lectures. The usual lectures to the 3rd year Medical Students, Public Health Nurses, Nurses-in-Training were given, and in some cases, expanded. A series of lectures were given to the students taking the "Health" course in the Faculty of Education.



## **DIVISION OF MEDICAL SERVICES**

**M. G. McCallum, B.Sc., M.D., D.P.H., Director**

### **EMERGENCY AIR AMBULANCE SERVICE**

The Government of the Province of Alberta, through the Department of Public Health, implemented a fully organized 'Emergency Air Ambulance Service' in January 1959 for the residents of Alberta. The service provides transportation to hospitals in the larger cities from outlying areas for medical, obstetrical and surgical cases, who, because of the emergent nature of the condition or inaccessibility of hospitals to the patient, of necessity must be transported by air services. Where the need for transportation to hospital is not urgent; where it is possible to care for the patient in a local hospital; where specialist care can be carried to the patient; or where the patient can be transported satisfactorily by car, ambulance or rail, the air service is not available. The patient or responsible party is required to pay a part of the air ambulance cost, amounting to \$25.00, for each flight.

During the year there were 55 ambulance flights, 53 patients were transported and blood was carried once to a hospital. Of the 53 patients 29 recovered, 10 were improved, 4 were unimproved, 9 died. There were two flights in which the patients died prior to arrival of the flight. There were 16 children and 6 infants among the total patients flown.

### **DIABETIC DRUG PROGRAM**

The Department of Public Health has provided to residents of Alberta, without charge, a hypoglycaemic medication in the form of insulin. The program has been operative for about thirty years and the insulin was provided under a "means' test".

As of 1st April, 1959, the administration of supplying insulin was transferred to the Division of Medical Services and expanded to include an oral hypoglycaemic medication tolbutamide.

As of 31st December, 1959, 314 patients were receiving insulin and 81 patients were receiving tolbutamide, without charge, under the program. There were also another 89 applications for tolbutamide in the course of being processed.

### **TREATMENT SERVICES FOR SOCIAL SERVICE RECIPIENTS**

In 1959 there was an increase in numbers of the total social service recipients, as well as an increase in each of the categories eligible to receive treatment service benefits under the Treatment Services Program of the Provincial Government. The over-all increase was 7.7% while the total population increase was only 3.5%. The comparative numbers in each of the Social Service Recipient categories for 1958 and 1959 appear in Table 1.

TABLE 1

Categories	Recipients		Spouses		Dependent Children		Total	
	1958	1959	1958	1959	1958	1959	1958	1959
Old Age Security* .....	20,366	21,511	2,178	2,235	372	423	22,916	24,183
Old Age Assistance† .....	5,664	6,150	1,137	1,270	340	366	7,141	7,786
Blind Pension .....	410	425	130	129	156	178	696	732
Mother's Allowance .....	2,009	2,164	.....	.....	4,810	5,194	6,819	7,358
Widow's Allowance .....	811	817	.....	.....	2	3	813	820
Disability Pension .....	2,841	3,269	551	647	606	884	3,998	4,800
Total .....	32,101	34,336	3,996	4,281	6,286	7,048	42,383	45,679

\*Recipients of Old Age Security plus Alberta Supplementary Allowance.

†Individuals 65-70 years of age in receipt of Old Age Assistance.

The average number of Social Service Recipients in the province during the calendar year 1959 was 44,051, an increase of 3,669 over 1958. This was accounted for by some increase in all categories.

The treatment services provided under the program include medical, dental, optical, and other special services such as physiotherapy, podiatry, chiropractic, etc. The latter are provided subject to the prior approval of the Medical Services Division. Complete hospitalization services are also provided through the Provincial Hospitals Division.

Provincial treatment services expenditures on behalf of this group amounted to \$1,031,303.66 in 1958 and \$1,318,031.31 in 1959, which was an increase of \$286,727.65. The per capita expenditure for the group was \$29.92 in 1959 as compared to \$26.16 in 1958, a per capita increase of \$3.76. This per capita increase in expenditure is largely due to the increase of the per capita payment to the Dental Association from \$4.00 to \$4.80 per year, and to the College of Physicians & Surgeons from \$19.00 to \$24.00 per year beginning April 1st, 1959. The expenditures by type of service rendered appear in Table 2.

TABLE 2  
PROVINCIAL EXPENDITURES FOR SOCIAL SERVICE RECIPIENTS—1958-1959

	1958	1959	
Medical Care .....	767,265.90	1,003,840.66	30.8% increase
Dental Care .....	161,529.66	202,903.85	25.6% increase
Optical and Optometric Services .....	100,384.10	107,517.80	7.1% increase
Other treatment services .....	2,124.00	3,769.00	77.4% increase
	\$1,031,303.66	\$1,318,031.31	

## 1. Medical Care For Social Service Recipients

This service functions by agreement between the College of Physicians & Surgeons and the Provincial Department of Public Health. The College, through its practising members, provides complete medical care for the social service recipient group, and in return in 1959 received \$24.00 per capita per year for eligible individuals based on a monthly payment of \$2.00 per capita. Previous to April 1st, 1959, this payment had been \$19.00 per year. These monies are placed in a Pensioner's Medical Fund and the medical practitioner submits his accounts for the care of this group to this fund. The fund pays the doctors on the

basis of fee for service after first appraising the account according to the minimum schedule of fees. The first payment to each doctor is 50% of the value of the assessed account. Subsequently, after the administrative costs are deducted for operating this fund, the remainder at the end of the year is prorated among the practitioners according to the assessed value of services provided. During the fiscal year April 1st, 1959 to March 31st, 1960 administrative costs were 2.62% of the assessed value of the accounts and the practitioners received 63.04% of the value of their assessed accounts as final payment. As a result, the medical profession of the Province of Alberta is making a very considerable contribution to care of the social service recipients in the province

In 1959 the province expended \$1,003,840.66 for medical services as compared to \$767,265.90 in 1958. This was an increase of \$236,574.70 or 30.8%. The explanation of this higher expenditure appears twofold; first, the per capita increase in payments to the College of Physicians & Surgeons from \$19.00 in 1958 to \$24.00 in 1959; second, the Disability Pension Group, a high utilization group, increased 20% from 1958 to 1959.

TABLE 3 (A)  
SOCIAL SERVICE RECIPIENTS MEDICAL SERVICES UTILIZATION AND ACCOUNTING FROM APRIL 1st, 1959, TO MARCH 31st, 1960,  
BY TYPES ACCORDING TO:

A. NUMBERS TREATED, OFFICE, HOME AND HOSPITAL VISITS AND MILEAGE TRAVELLED BY DOCTORS

PENSION GROUP	OFFICE VISITS			HOUSE VISITS		HOSPITAL VISITS			
	Cases Treated	Male	Female	Number	Value of Assessed Accounts	ACUTE		CHRONIC	
						Number	Value of Assessed Accounts	Number	Value of Assessed Accounts
70 and Over									
Recipients	48,403	23,054	25,349	34,629	119,371.00	19,110	124,712.00	8,402	16,308.00
Spouses	3,854	176	3,678	3,132	11,393.00	553	2,536.00	97	213.00
Children	25	147	8	17	47.00	4	11.50	.....	.....
Total	52,282	23,247	29,035	37,798	130,811.00	19,667	127,279.50	8,499	16,521.00
65 - 69									
Recipients	38,456	14,551	23,945	34,964	121,900.00	8,959	40,461.00	2,146	4,288.00
Spouses	5,060	284	4,776	4,095	13,845.00	400	2,068.00	50	101.00
Children	857	211	646	810	3,025.00	50	259.00	.....	.....
Total	44,413	15,046	29,367	39,869	138,770.00	9,409	42,788.00	2,196	4,389.00
Widow's Allowance									
Recipients	3,251	.....	3,251	2,603	9,723.00	389	1,774.00	98	197.00
Children	52	11	41	42	179.00	11	65.00	5	9.00
Total	3,303	11	3,292	2,645	9,902.00	410	1,839.00	103	206.00
Mother's Allowance									
Recipients	7,023	.....	7,023	6,165	23,062.00	601	3,082.00	58	59.00
Children	6,974	3,269	3,705	5,383	20,579.00	311	4,790.00	12	10.00
Total	13,997	3,269	10,728	11,548	43,641.00	912	7,872.00	70	69.00
Blind Pension									
Recipients	2,055	934	1,121	1,411	4,858.00	471	1,705.00	488	865.00
Spouses	226	49	177	174	674.00	23	118.50	.....	.....
Children	143	72	71	116	443.00	18	103.00	8	23.00
Total	2,424	1,055	1,369	1,701	5,975.00	512	1,926.50	496	888.00
Disability Pension									
Recipients	14,410	8,394	6,016	9,339	32,838.00	1,711	7,960.00	1,027	2,118.00
Spouses	1,517	82	1,435	1,365	5,022.00	94	1,630.00	10	18.00
Children	804	487	317	639	2,526.00	65	353.00	.....	.....
Total	16,731	8,963	7,768	11,343	40,387.00	1,870	8,805.00	1,037	2,136.00
TOTAL	133,150	51,591	81,559	104,904	369,489.00	32,790	190,510.00	12,401	24,189.00
							429,490.50		42,887

## DEPARTMENT OF PUBLIC HEALTH

TABLE 3 (B)  
SOCIAL SERVICE RECIPIENTS MEDICAL SERVICES UTILIZATION AND ACCOUNTING FROM APRIL 1st, 1959, TO MARCH 31st, 1960,  
BY TYPES ACCORDING TO:

B. SURGICAL TREATMENTS, ANAESTHETICS, MEDICAL CONSULTATIONS, X-RAY EXAMINATIONS AND LABORATORY PROCEDURES

PENSION GROUP	SURGICAL		ANAESTHETICS		CONSULTATIONS		X-RAYS		LABORATORY		Average Number of Pensioners covered per Month
	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	
70 and Over											
Recipients	2,576	34,797.00	1,393	22,840.00	1,767	20,128.00	2,242	27,431.00	2,101	7,259.00	21,641
Spouses	172	10,337.00	117	1,691.00	99	1,085.00	253	2,579.00	214	733.00	2,239
Children	2	115.00			2	11.00	3	19.00	3	9.00	436
Total	2,750	45,249.00	1,510	24,531.00	1,868	21,224.00	2,478	30,029.00	2,318	8,001.00	24,316
65 - 69											
Recipients	2,274	69,460.00	1,284	22,337.00	2,194	16,648.00	2,845	29,859.00	1,704	7,638.00	6,173
Spouses	236	12,370.50	134	2,063.00	129	1,542.00	333	4,078.00	239	933.00	1,253
Children	27	879.00	20	341.00	11	101.00	24	401.00	13	62.00	323
Total	2,537	82,709.50	1,438	24,741.00	2,334	18,291.00	3,202	34,338.00	1,956	8,633.00	7,749
Widow's Allowance											
Recipients	139	6,285.00	92	1,038.00	87	978.00	234	2,854.00	278	1,044.00	815
Children	4	63.00	2	17.00			3	21.00	7	25.00	3
Total	143	6,358.00	94	1,055.00	87	978.00	237	2,875.00	285	1,069.00	818
Mother's Allowance											
Recipients	471	24,031.00	287	4,439.00	207	2,263.00	580	6,428.00	546	1,752.00	2,206
Children	586	19,820.00	354	5,141.00	149	1,824.00	461	5,551.00	301	1,288.00	5,190
Total	1,057	43,851.00	641	9,580.00	356	4,087.00	1,041	11,979.00	847	3,040.00	7,396
Blind Pension											
Recipients	103	7,429.00	47	686.00	77	785.00	63	537.00	87	343.00	426
Spouses	15	1,024.00	10	178.00	8	80.00	19	211.00	11	24.00	128
Children	29	1,005.00	10	172.00	11	132.00	8	48.00	8	8.00	175
Total	147	9,458.00	67	1,036.00	96	997.00	90	796.00	106	375.00	729
Disability Pension											
Recipients	629	35,877.00	398	6,466.00	443	4,971.00	621	7,200.00	511	1,469.00	3,285
Spouses	108	4,942.00	39	540.00	41	442.00	116	1,343.00	63	277.00	639
Children	77	2,903.00	32	675.00	20	235.00	20	228.00	38	131.00	879
Total	814	43,722.00	469	7,681.00	504	5,648.00	757	8,771.00	614	1,877.00	4,803
TOTAL	7,448	231,347.50	4,219	68,622.00	5,245	51,225.00	7,905	88,788.00	6,126	22,995.00	45,811



TABLE 3 (C)  
SOCIAL SERVICE RECIPIENTS MEDICAL SERVICES UTILIZATION AND ACCOUNTING FROM APRIL 1st, 1959, TO MARCH 31st, 1960,  
BY TYPES ACCORDING TO:

C. REFRACTIONS, ELECTROCARDIOGRAMS, OTHER PROCEDURES, AND AVERAGE ACCOUNTS FOR PENSIONERS

PENSION GROUP	REFRACTIONS		E.C.G.		OTHER PROCEDURES		LATE BILLING PENALTIES		TOTAL		Average Annual Cost per Pensioner Less Costs of Operation
	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	Number	Value of Assessed Accounts	Procedure	Value of Accounts	
70 and Over	1,281	12,810.00	2,297	12,290.00	745	4,585.00	1,024	6,261.50	202,334	644,368.00	3.18
	95	950.00	116	678.00	54	418.00	60	335.50	10,245	44,453.50	4.36
	1	10.00	1	5.00				11.00	34	227.50	5.20
	1,377	13,770.00	2,414	12,973.00	799	5,003.00	1,085	6,608.00	212,613	689,049.00	3.21
65 - 69	1,004	10,040.00	1,851	10,344.00	683	4,249.00	557	5,252.50	134,358	430,662.00	3.21
	138	1,380.00	141	779.00	61	353.00	54	807.00	12,431	54,684.50	4.41
	16	160.00	10	43.00	6	48.00	10	37.00	2,023	6,393.00	3.16
	1,158	11,580.00	2,002	11,166.00	750	4,652.00	621	6,086.50	148,832	491,729.50	3.30
Widow's Allowance	80	800.00	106	347.00	59	1,944.00	28	324.50	7,706	35,106.00	4.55
			6	40.00	1	11.50	1	2.50	205	761.50	3.85
	80	800.00	112	387.00	60	1,955.50	29	327.00	7,911	35,867.50	4.54
											80.75
Mother's Allowance	248	2,480.00	119	743.00	146	1,131.00	87	682.50	13,031	83,114.00	63.90
	405	4,050.00	55	377.00	74	584.00	101	474.50	11,716	74,855.00	64.00
	653	6,530.00	174	1,120.00	220	1,715.00	188	1,157.00	24,747	157,969.00	63.20
											21.35
Blind	63	630.00	71	385.00	60	316.00	27	309.50	7,170	27,040.00	3.77
	4	40.00	11	69.00	10	83.00	2	2.50	429	2,926.50	1.85
	8	80.00	1	8.00	3	51.00				2,548.00	6.38
	75	750.00	83	462.00	73	450.00	29	312.00	8,001	32,514.50	4.06
Disability Pension	209	2,090.00	318	1,702.00	178	1,828.00	220	1,891.50	38,488	158,695.00	4.70
	32	320.00	39	225.00	17	97.00	12	253.50	8,568	41,994.00	4.94
	11	110.00	40	241.00	14	141.00	54	494.00	2,019	15,531.00	7.76
	252	2,520.00	397	2,168.00	209	1,566.00	286	2,639.00	42,085	191,981.00	4.57
TOTAL	3,595	35,950.00	5,182	28,276.00	2,111	15,341.50	2,238	17,139.50	444,188	1,599,110.50	3.68

## 2. Dental Services For Social Service Recipients

This program has changed little through the years since its beginning in 1947. The service functions by an agreement between the Alberta Dental Association and the Provincial Department of Public Health. The Dental Association, through its practising dentists, provides routine dental care for the Social Service Recipients. New dentures and partial plates are provided at half cost to eligible individuals. Posterior bridge work is not provided. In return the province makes a payment to the Dental Association of 40c per month (\$4.80 per year) for each eligible recipient under the plan. This payment prior to April 1st, 1959 was 33 1/3c per month (\$4.00 per year) which partially explains the per capita increase in expenditures by the Department of Public Health in providing dental services for Social Service Recipients. Each dentist receives payment in full from the Dental Association on submission of his accounts.

In 1959 for dental services, the province expended \$202,903.85 as compared to \$161,530.36 in 1958, an increase of \$41,373.55 or 25.6%.

Table 4 shows the utilization of dental services by Social Service Recipients during the Calendar years 1957 - 1959 inclusive.

TABLE 4  
SOCIAL SERVICE RECIPIENTS UTILIZATION OF DENTAL SERVICES BY GROUPS  
AND YEARS—1957 to 1959

GROUP	Cases Treated			Percentage of Total Recipients				Disbursements	
	1957	1958	1959	1957	1958	1959	1959 % of Recipients and Dependents	Total per Group, 1959	Average per Case, 1959
Old Age Group Recipients .....	3,442	3,721	3,156	11.9%	12.5%	12.1%	11.9%	\$58,056.61	\$18.39
Dependents .....	....	....	580	....	....	....	13.9%	10,691.00	18.43
Mother's Allowance Recipients .....	2,700	2,852	986	43.7%	44.1%	50.1%	47.1%	19,941.50	20.22
Dependents .....	....	....	2,594	....	....	....	51.4%	48,643.50	18.75
Blind Pension Recipients .....	149	172	134	23.1%	24.6%	22.6%	25.0%	2,388.50	17.82
Dependents .....	....	....	59	....	....	....	18.4%	1,343.00	22.76
Widow's Allowance Recipients .....	129	136	146	16.7%	16.9%	17.9%	17.7%	3,151.00	21.58
Dependents .....	....	....	2	....	....	....	66.7%	14.00	7.00
Disability Pension Recipients .....	....	728	837	....	26.4%	26.6%	27.2%	16,247.65	19.41
Dependents .....	....	....	350	....	....	....	25.2%	6,368.00	18.19
TOTAL .....	6,420	7,609	8,844	17.5%	18.8%	20.1%	20.1%	\$166,844.76	\$18.87

There were 1,233 more individuals who utilized dental services in 1959 than in 1958, this difference being almost entirely accounted for by an increase in utilization by the Mother's

Allowance Group with 50% of these recipients and dependents receiving dental care. The payments made by the Dental Association to the practising dentists during the year were \$170,729.76 or \$19.30 per individual treatment. Administrative costs were \$14,804.21 or 8.67% of treatment costs.

### 3. Optical Services For Social Service Recipients

A total of 7,890 claims for glasses at a cost of \$77,225.30 was approved in 1959. This showed an increase of 124 or 1.6% in claims and \$2,029.40 or 2.7% increase in payment.

Comparative data for eligible recipients is shown in Table 5.

TABLE 5  
SOCIAL SERVICE RECIPIENTS UTILIZATION AND COSTS OF OPTICAL SERVICES  
1957 - 1959

	Average Number of Recipients	Number of Accounts	% of Recipients Obtaining Glasses	Total Cost of Glasses	Cost per Account
1957 .....	36,620	6,901	18.8%	\$63,949.96	\$9.27
1958 .....	40,382	7,766	19.2%	75,195.90	9.69
1959 .....	44,051	7,890	17.9%	77,225.30	9.79

The above indicates a decrease in the relative number of Social Service Recipients receiving glasses, 17.9% as compared to 19.2% in 1958, and 18.8% in 1957. There was a slight increase in cost per account.

Total payments to optometrists were \$30,292.50 for 5,377 claims which is an increase of \$5,104.30 or 20.3% in payment and an increase of 356 or 7.1% in claims.

Payment to the medical eye specialist is a part of the over-all agreement for pensioners medical care made with the College of Physicians & Surgeons of Alberta.

### 4. Other Treatment Services

These services include physiotherapy, nursing, podiatry and chiropractic, and are provided only on the recommendation of the patient's physician and approval by the Director of Medical Services. Expenditures for these services amounted to \$3,769.00 showing an increase of \$1,645.00 or 77.4% over 1958.

Provincial expenditures for these services were as follows:

Physiotherapy .....	\$2,121.00
Chiropractic .....	1,009.00
Nursing .....	587.00
Podiatry .....	52.00
Total .....	\$3,769.00

Outpatient physiotherapy, which is received at hospitals, is not included in the above totals but is part of the hospitalization services.

### POLIOMYELITIS TREATMENT PROGRAM

The Poliomyelitis Sufferer's Act and Regulations provide treatment services for residents of Alberta who suffer from poliomyelitis. These treatment services include in-hospital medical and surgical care, subsequent to the fourteen day isolation period. Orthopaedic appliances, splints and other equipment are

also provided as well as outpatient physiotherapy, muscle tests, radiological and other assessment procedures. Medical care during the isolation period (14 days) in hospital is not provided, nor is medical care outside of hospital. Outpatient speech therapy and occupational therapy may be provided.

During the year there were 278 admissions to hospital with a total stay of 22,337 days, of which 536 were for the isolation period.

Of the 278 admissions 143 were re-admissions and 175 first admissions. The first admissions included 80 acute paralytic, 14 acute non-paralytic, and 41 chronic cases.

TABLE 6  
PROVINCIAL EXPENDITURES FOR POLIOMYELITIS TREATMENT SERVICES

	1958	1959
Medical Care .....	57,888.25	47,146.75
Medical Supervisors .....	3,064.00	3,600.00
Appliances and Outpatient Services .....	30,256.54	32,120.37
Home Care Program .....	9,090.11	9,884.15
Total .....	\$100,298.90	\$92,751.27

It will be noted that there was a decrease in the medical care expenditures in 1959 as compared to 1958. This was due to a decrease in total cases under care.

Of the total payments for medical care in hospital for poliomyelitis patients, \$8,516.00 was paid to the College of Physicians & Surgeons for providing 4,258 days at \$2.00 per day, \$10,528.80 was paid for providing 17,543 non-respirator days at 60c per day, and \$28,104.95 was paid directly to the doctors for 145 operative procedures. This latter amount included surgeons, surgical assistants and anaesthetists' fees, paid on the basis of the College of Physicians & Surgeons' schedule of fees, less 10%. The medical supervision was a payment to an orthopaedic specialist for supervision of the poliomyelitis services in the Alberta Crippled Children's Hospital.

Appliances and outpatient services include the following services and payments:

Service	Expenditure
INPATIENT	
431 appliances .....	\$25,497.42
OUTPATIENT	
36 appliances .....	2,774.55
715 physiotherapy treatments .....	1,454.00
143 muscle tests .....	207.50
radiological .....	2,093.50
other services .....	83.40
Total .....	\$32,120.37

Under the Home Care Program implemented in 1957 for long term poliomyelitis cases, there was an expenditure of \$9,884.15 for equipment in 1959. To the end of 1959 there had been equipment purchased for 13 persons of whom 10 had been placed in their homes by December 31st, 1959.

## RHEUMATIC FEVER PROPHYLAXIS PROGRAM

This program was implemented in June 1958, by the Department of Public Health and by the end of 1959 had been in operation for 18 months. Children under 18 years of age, whose physician can demonstrate a history of rheumatic fever, are eligible for prophylactic therapy benefits.

There are a considerable number of children in the province suffering from the effects of rheumatic fever attacks. The program is intended to prevent recurring attacks and thereby prevent incapacitating disabilities in these children. The child eligible under the program receives 400,000 units of penicillin daily for as long as his doctor considers it in the best interest of the child's health.

Applications approved in 1958 (6 months) .....	494
Applications approved in 1959 .....	433
Total .....	927

The individual receives a three months supply at a time. To December 31st, 1959, there were 927 initial supplies provided and 1,795 subsequent supplies provided to a total of 927 cases.

There were 7 cases sensitive to penicillin of which only one developed sensitivity subsequent to initiation of treatment. These individuals received triple sulpha instead of penicillin.

## THE SCHOOLS FOR NURSING AIDES

The Nursing Aide Education Program has been in operation for fourteen years and the need for more and more Nursing Aides increases with the demand for more nursing personnel. With the increase in size and number of hospitals under the Hospitalization Benefits Act and the expanding of procedures, treatments, medications, diagnostic tests and preventive measures requiring more of the time of the professional nurse, greater numbers of Nursing Aides are required to fill the gap at the patient's bedside, with the nurse performing the highly trained technical professional duties.

As a result of the foregoing, a second Nursing Aide School was opened in Edmonton in 1958 to complement the School in Calgary. The first students were admitted in February, 1958, and the first class certified at the end of the year. In April, 1959 the Department of Public Health decided these schools should operate as near capacity as possible and during the year enrolled 308 in the Calgary School and 270 in the Edmonton School.

The average number of the class for the year 1959 was 28 in the Calgary School and 27 in the Edmonton School with the enrollment of eleven classes in each school during the year. Following is the table of aides certified during each calendar year from 1946 to 1959:

1946 .....	10	1953 .....	208
1947 .....	41	1954 .....	256
1948 .....	160	1955 .....	270
1949 .....	117	1956 .....	254
1950 .....	159	1957 .....	239
1951 .....	247	1958 .....	281
1952 .....	216	1959 .....	451



Of the 451 aides certified during the year, 26 were certified under Section 16 of the regulations governing nursing aides in the province.

This Nursing Aide Program serves; to train those women in nursing who do not possess the academic qualifications to enter professional nursing, and to give these women a vocation which they can practice with personal satisfaction, and to contribute extensively to the nursing field in the care of the sick.

### NURSING RECRUITMENT PROGRAM

This program has been functioning actively since 1956. It recruits applicants for education as Nurses and Nursing Aides. The need for this is as great or greater now than previously. With the implementation of the Hospitalization Benefits Plan there is a tremendous increase in general acute and chronic patient beds, and thus a need for more nursing personnel. In 1957 there were just over 7,000 active patient beds, presently there are 7,500 with a further planned increase of 2,000. There are presently 775 chronic hospital beds with an increase of 2,500 more planned. Added to the foregoing there are a large number of nursing home beds used for the care of the chronically ill which employs many nursing aides. It is thus essential that every effort be made to recruit candidates for the Nursing and Nursing Aide Education Programs.

The Nursing Recruitment Officer carries forward the recruitment program by means of pamphlets, posters, newspaper advertisements, radio and television. Films and filmstrips are in use. Material is prepared and distributed for use by counsellors in the secondary schools; speakers are arranged for Career Day talks in schools. The Recruitment Officer visits schools throughout the province advising students on the career possibilities in the field of nursing.

It is rather difficult to assess the value of this program, but in spite of the increase of patient beds the nursing situation appears better. The active hospitals have enlarged their nurse educational schools and the two Nursing Aide Schools have increased their enrollment to approximately 600 per year.

### THE LABORATORY AND X-RAY SCHOOL

The Laboratory and X-ray School is operated by the Department of Public Health for the purpose of training individuals as combined technicians in both radiology and diagnostic laboratory procedures. Small hospitals have part-time work for a radiological technician and also a clinical laboratory technician but not a full-time position. One combined technician is capable of filling both positions satisfactorily. The course is of six months duration, provides three months training in technical radiology and clinical laboratory. Seventeen technicians were certified as of March 31st, 1959.

The School has now certified seventy-seven technicians in the five years of operation.

There has been considerable demand by hospitals for more of these technicians. As a result, a class of twenty-two was en-

rolled in October 1959. It was found necessary to provide a second laboratory technician for several months to augment the teaching of the supervisor technician. This enlargement of the size of the class should adequately supply all small hospitals with combined technicians.

Following is the disposition of the 77 technicians certified, since the inception of the course in 1954, to December 31st, 1959:

Active in rural hospitals, including Department Institutions (2)	39
Full time 35, part time 4 .....	4
Active in other establishments (clinics) .....	6
Taking or having completed further training at R.T. level .....	9
Active at out-of-Province locations .....	58
Active Total .....	

The net increase of technicians in small hospitals and institutions since December 31st, 1958 is only five, although the net increase of these in active treatment work is sixteen.

## DIVISION OF CANCER SERVICES

V. W. Wright, M.D., Director

The three Cancer Clinics in the Province of Alberta have experienced a very busy year (1959) as the tables below will reveal.

1. Number of examinations made (Malignant and Benign) January 1 - December 31, 1959, is 22,075.

	New		Review		Total	
	1959	1958	1959	1958	1959	1958
Edmonton .....	2,859	2,869	9,114	8,816	11,973	11,685
Calgary .....	1,833	1,859	6,409	3,982	8,242	5,841
Lethbridge .....	522	569	1,338	1,350	1,860	1,919

It will be noted that the total number of examinations made in the Edmonton, Calgary and Lethbridge Clinics is 22,075 as compared with 19,445 in 1958; 18,243 in 1957; 17,060 in 1956; 14,306 in 1955 and 13,026 in 1954.

2. Number of examinations made where malignancy was proven 17,644 as compared with 12,811 in 1958 as shown in the following table:

	Edmonton	Calgary	Lethbridge	Total
1959 .....	9,574	6,659	1,411	17,644
1958 .....	9,135	2,208	1,468	12,811

### EDMONTON CLINIC

New Malignant cases reporting to Clinic in 1959 .....	1,145
Previously Benign cases reporting to Clinic in 1959 .....	135
Prior to 1953 reporting to Clinic for the first time in 1959 .....	42
Total New Malignant cases reporting to Clinic in 1959 .....	1,322
Non-reporting Malignant cases: Path. and Autopsy Reports .....	249
Cases treated elsewhere reporting to Clinic in 1959 .....	135
Total .....	1,706

### CALGARY CLINIC

New Malignant cases reporting to Clinic in 1959 .....	783
Non-reporting Malignant cases: Path. and Autopsy Reports .....	174
Total .....	957

### LETHBRIDGE CLINIC

New Malignant cases reporting to Clinic in 1959 .....	204
Non-reporting Malignant cases: Path. and Autopsy Reports .....	19
Total .....	223

The Total Number of New Malignant Cases discovered in Alberta in 1959 was 2,751.

4. Number of examinations made on patients which proved Benign -

	Edmonton	Calgary	Lethbridge	Total
1959 .....	2,399	1,583	449	4,431
1958 .....	2,550	3,633	451	6,634

5. The X-ray Department of the Edmonton Clinic has had a particularly busy year as shown in the following tables:

#### Diagnostic Radiology

	No. of Films	No. of Pts.	No. of Exams.	Average No. of Exams. per Day
1959 .....	27,338	5,036	7,840	33.8
1958 .....	19,186	4,266	5,999	25.8
1957 .....	17,338	4,236	5,665	24.4

Approximately 5-6000 outside films were reviewed on 508 patients. Non standard fluoroscopies were done on 360 patients.

	G.I. Series	Large Bowel and Air Contrast	Urinary Tract	Tomographies
1959 .....	853	501 - 123	201	345
1958 .....	756	435 - 102	223	174
1957 .....	548	431 - 55	66	90
<b>Therapeutic Radiology</b>				
New Patients—X-ray, Cobalt, etc. ....			1959	1958
Patients re-treated—X-ray, Cobalt, etc. ....			722	759
Patients treated with radium .....			500	508
Patients treated with radioisotopes .....			54	107
			8	....
			1,284	1,374
<b>Treatment Given By</b>				
Cobalt 60 .....			8,363	10,581
X-ray .....			4,084	3,745
Cobalt 60 and X-ray .....			835	836
Cesium 137 .....			126	....
			13,408	15,162
Radium Insertions, implants and moulds .....			236	212
Biopsies done at Clinic .....			71	47
Blood Counts done in Clinic Laboratory .....			7,720	7,044

## 6. NUMBER OF CASES SUPPLIED WITH THE FOLLOWING SERVICES

	Hospital Services		Radiation Therapy		Diagnostic X-Ray	
	1959	1958	1959	1958	1959	1958
Edmonton .....	275	484	1,284	1,374	5,036	4,266
Calgary .....	125	311	568	499	1,280	1,340
Lethbridge .....	8	59	70	137	503	417
	408	854	1,922	2,010	6,819	6,023

\*Radiation Services include treatment by Cobalt 60, Cesium 137, Deep and Superficial X-Ray, Radium and Radioisotopes.

	Major Surgery		Exploratory Laparotomy		Breast Biopsies	
	1959	1958	1959	1958	1959	1958
Edmonton .....	738	709	113	103	322	284
Calgary .....	508	519	68	57	286	270
Lethbridge .....	106	149	29	23	92	83
	1,352	1,377	210	183	700	637

	Other Biopsies		Diagnostic Curettages		Encephalograms, etc.	
	1959	1958	1959	1958	1959	1958
Edmonton .....	589	486	262	271	11	21
Calgary .....	478	602	130	138	....	....
Lethbridge .....	170	196	36	38	....	....
	1,237	1,284	428	447	11	21

	Bronchoscopy and Oesophagoscopy		Sigmoidoscopy		Cystoscopy	
	1959	1958	1959	1958	1959	1958
Edmonton .....	94	109	211	183	270	286
Calgary .....	41	38	12	16	86	81
Lethbridge .....	6	8	10	13	36	37
	141	155	233	212	392	404

	Investigations and Consultations		Laboratory Tests	
	1959	1958	1959	1958
Edmonton .....	190	151	7,803	7,127
Calgary .....	42	75	1,090	479
Lethbridge .....	7	5	68	29
	239	231	8,961	7,635

7. Since the opening of the Clinics in 1941 the total number of examinations made is 176,092.

## DIVISION OF SOCIAL HYGIENE

P. L. Rentiers, M.D., Director

The year 1959 has been one of heightened activity for the Division of Social Hygiene, with the Head Office and all the Clinics showing an increased work load. Alberta's venereal disease rates continue to be amongst the highest in Canada. There are many factors contributing to this:

- (1) A rapidly expanding population. In 1959 Alberta's population reached the 1,243,000 mark as compared to 1,201,000 in 1958 and 1,160,000 in 1957.
- (2) The opening of new centres of population in relatively inaccessible cases.
- (3) The great influx of transient labour not only to our urban points but also to the isolated communities.
- (4) The relatively high incidence of disease amongst our native population. Approximately 3.1% of our total populace is of Indian or Half-breed extraction. This 3.1% of our population accounted for almost one-third of all our venereal disease cases. This explains the frequency of semi-epidemic conditions which exist from time to time in the isolated communities, bush camps, and construction camps, etc.
- (5) The good rapport maintained between the private practitioners and this Division, resulting in an excellent reporting of cases.
- (6) The continued policy of the Division to search out new cases by the increased use of the mobile clinic.

Comparative rates for syphilis and gonorrhoea per 100,000 population for Alberta in 1957, 1958 and 1959 were as follows:

SYPHILIS	1957	1958	1959
All Types .....	9.7	13.9	17.9
Primary and Secondary .....	1.9	4.1	9.6
GONORRHOEA .....	215.4	209.0	193.6

It will be noted that the total figure for gonorrhoea is down. We attach no importance to this drop since it has been amply shown that many cases of gonorrhoea are diagnosed, treated and followed up by the private physicians without recourse to the Provincial Laboratory facilities. This being the case, our Division has no control as it has in the diagnosis and treatment of syphilitic infection.

While the increase in the number of cases of early syphilis is worrisome, the situation should not create undue alarm. It demonstrates that there can be no complacency or relaxation of effort by this Division. Proven methods of control should be maintained and perhaps even tightened. Foremost among the control procedures for syphilis is the routine taking of blood tests at every opportunity. This last year 45.5% of our new syphilitic infections first came to our attention because such tests were taken. 1725 positive or doubtful blood specimens (exclusive of those taken in our clinics) were investigated during 1959. Of this number 495 related to known cases, 1230 to persons



on whom we had no diagnosis. Of the previously undiagnosed cases some have been confirmed syphilitic, others have proven to be instances of false positive reactions, and many are still under investigation pending a decision. 1471 negative blood specimens were found to be of value as follow-up tests in known cases of syphilitic infection, gonorrhoeal infections, and persons who had been named as sources of, or contacts to syphilitic infection.

In reaching a decision concerning cases of reactive serology the Treponema Pallidum Immobilization Test has continued to be of infinite value. 210 blood specimens were submitted for this test during the year, 71 of which were reported as positive, 105 as negative, and 34 as unsatisfactory. Of the 71 positive tests 56 confirmed the diagnosis of syphilis and 13 related to previously known cases.

This Division has continued to co-operate with the Indian and Northern Health Services by acting as a central registry and providing consultative service for the Northwest Territories directly beyond our northern boundary. There has been a decided increase in the number of syphilitic infections reported from this area which has greatly added to the work of our Division; nevertheless, we feel that our knowledge of these cases has aided in the tracing of provincial sources and contacts. The developments in the Northwest Territories have resulted in a constant and rapid shifting of persons to and from that area. New infectious cases of syphilis in Alberta have been traced directly back to sources in the Northwest Territories and vice versa.

We would like to acknowledge once again the faithful co-operation received from the private physicians and Public Health Agencies, from Dr. R. D. Stuart of the Provincial Laboratory and his staff, the Provincial and City Welfare Departments, the Indian and Northern Health Services, the Royal Canadian Mounted Police and the local Police. Without the assistance and interest of all these groups the work of our Division would be sadly hampered.

The statistical report of our Division is as follows:

DIVISION OF SOCIAL HYGIENE  
ALLEGED SOURCES OF OR CONTACTS TO VENEREAL INFECTION  
JANUARY 1, 1959 - DECEMBER 31, 1959

Residential Status	Number Reported with Sufficient Information for Investigation	Number Located	Percentage Located
Alberta .....	2,614	2,372	91%
Non-Alberta .....	130	62	48%
Northwest Territories .....	147	141	96%
TOTALS .....	2,891	2,575	89%

Agent Forwarding Information	Number Reported with Sufficient Information for Investigation	Number Reported with Insufficient Information for Investigation
Private Physicians .....	938	354
Provincial Clinics .....	1,719	710
Armed Forces .....	92	27
Other Provinces .....	142	....

## DEPARTMENT OF PUBLIC HEALTH

EPIDEMIOLOGICAL INVESTIGATIONS CARRIED OUT BY DIVISION OF  
SOCIAL HYGIENE

## I Sources and Contacts to Venereal Disease:

Unit	Total Cases Processed	Cases Investigated	Cases Not Investigated Insufficient Information
Edmonton Clinic .....	1,420	1,180	240
Calgary Clinic .....	1,212	1,092	120
Lethbridge Clinic .....	152	127	25
Mobile Clinic .....	188	179	9
Head Office .....	2,891	2,575	316

Unit	II Delinquents Total Cases	III Miscellaneous Total Cases
Edmonton Clinic .....	594	139
Calgary Clinic .....	72	469
Lethbridge Clinic .....	6	110
Mobile Clinic .....	2	59

## PROVINCIAL CLINIC, Alberta Jasper Building, 9815 Jasper Avenue, Edmonton, Alberta

## Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (All Forms) ..	.....	.....	.....	.....	.....	1	42	98	697	369	.....	.....	1207
Syphilis (Congenital) ..	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Acquired—Primary .....	.....	.....	.....	.....	.....	.....	1	.....	21	.....	.....	.....	22
Acquired—Secondary .....	.....	.....	.....	.....	.....	.....	1	1	3	3	.....	.....	8
Acquired—Latent .....	.....	.....	.....	.....	.....	.....	.....	.....	10	5	.....	.....	15
Type Undetermined .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
TOTALS .....	.....	.....	.....	.....	.....	1	44	99	732	378	.....	.....	1254

Number of Cases of Syphilis—Male 37, Female 10 .....	47
Number of Cases of Gonorrhoea—Male 739; Female 468 .....	1,207
Number and results of Serological Tests for Syphilis: 13,208 of which 439 were positive.	
Number and results of Darkfield Examinations: 42 of which 17 were positive.	
Number and results of Cerebrospinal Fluid Tests: 11 of which 3 were positive.	
Number and results of Bacteriological Tests for Gonococci: 1,894 of which 808 were positive.	
Number and results of Cultures taken for Gonococci: 4,871 of which 632 were positive.	
Total Number of Patient visits .....	21,938
Total Number of New Admissions .....	1,280
Total Number of Old Infections for Follow-up first time in Current Year—	
Syphilis .....	73
Gonorrhoea .....	40

## PROVINCIAL CLINIC, Alberta Office Building, 134 8th Avenue, S.E., Calgary, Alberta.

## Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (All Forms) ..	.....	.....	.....	.....	.....	1	1	27	31	379	151	.....	590
Syphilis—(Congenital) ..	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Acquired—Primary .....	.....	.....	.....	.....	.....	.....	.....	.....	21	3	.....	.....	24
Acquired—Secondary .....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	5	.....	9
Acquired—Latent .....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	3	.....	8
Acquired—Tertiary .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
(Neurosyphilis) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Acquired—Tertiary .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
(Other) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTALS .....	.....	.....	.....	.....	.....	1	1	27	34	409	162	.....	634

Number of Cases of Syphilis—Male 30, Female 14 .....	44
Number of Cases of Gonorrhoea—Male 407, Female 183 .....	590
Number and results of Serological Tests for Syphilis: 6,409 of which 318 were positive.	
Number and results of Darkfield Examinations: 23 of which 4 were positive.	
Number and results of Cerebrospinal Fluid Tests: 6 of which 0 were positive.	
Number and results of Bacteriological Tests for Gonococci: 2,930 of which 628 were positive.	
Number and results of Cultures taken for Gonococci: 10 of which 2 were positive.	
Total Number of Patient Visits .....	9,925
Total Number of New Admissions .....	875
Total Number of Old Infections for follow-up first time in Current Year—	
Syphilis .....	37
Gonorrhoea .....	....

PROVINCIAL CLINIC, Division of Social Hygiene, Lethbridge Municipal Hospital,  
Lethbridge, Alberta

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (All Forms) ..	.....	.....	.....	.....	.....	.....	9	3	41	3	.....	.....	56
Syphilis—Congenital) .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Acquired—Primary .....	.....	.....	.....	.....	.....	.....	1	.....	4	2	.....	.....	7
Acquired—Secondary .....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	3
Acquired—Latent .....	.....	.....	.....	.....	.....	.....	1	.....	5	2	.....	.....	8
TOTALS .....	.....	.....	.....	.....	.....	.....	10	4	52	9	.....	.....	75

Number of Cases of Syphilis—Male 12, Female 7 .....	19
Number of Cases of Gonorrhoea—Male 50, Female 6 .....	56
Number and results of Serological Tests for Syphilis: 429 of which 44 were positive.	
Number and results of Darkfield Examinations: 13 of which 3 were positive.	
Number and results of Cerebrospinal Fluid Tests: 1 of which 0 were positive.	
Number and results of Bacteriological Tests for Gonococci: 133 of which 57 were positive.	
Number and results of Cultures taken for Gonococci: 11 of which 1 was positive.	
Total Number of Patient Visits .....	488
Total Number of New Admissions .....	93
Total Number of Old Infections for Follow-Up first time in Current Year—	
Syphilis .....	6
Gonorrhoea .....	2

PROVINCIAL GAOL, Lethbridge, Alberta.

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (All Forms) ..	.....	.....	.....	.....	.....	.....	2	.....	6	.....	.....	.....	8
Syphilis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Acquired—Latent .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	2
TOTALS .....	.....	.....	.....	.....	.....	.....	2	.....	7	.....	1	.....	10

Number of Cases of Syphilis—Male 2 .....	2
Number of Cases of Gonorrhoea—Male 8 .....	8
Number of Prisoners Admitted .....	2,614
Number and results of Serological Tests for Syphilis: 927 of which 28 were positive.	

MOBILE CLINIC—Lac La Biche, Surrounding Area, McMurray, Good Fish Lake, Slave Lake,  
Grande Prairie, Peace River Area, Lubicon Lake, Manning, Meander River and  
Indian Cabins.

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (All Forms) ..	.....	.....	.....	.....	.....	.....	2	.....	1	1	.....	.....	4
Syphilis (Congenital) .....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
Acquired—Secondary .....	.....	.....	.....	.....	.....	.....	1	3	1	.....	.....	.....	5
Acquired—Latent .....	.....	.....	.....	.....	.....	.....	1	11	8	.....	.....	.....	20
TOTALS .....	.....	.....	.....	.....	.....	.....	2	2	15	10	.....	.....	31

Number of Cases of Syphilis—Male 14, Female 13 .....	27
Number of Cases of Gonorrhoea—Male 3, Female 1 .....	4
Number and results of Serological Tests for Syphilis: 748 of which 65 were positive.	
Number and results of Bacteriological Tests for Gonococci: 5 of which 3 were positive.	
Number and results of Cultures taken for Gonococci: 5 of which 1 was positive.	
Total Number of Patient Visits .....	56
Total Number of Treatments Given .....	159

## DEPARTMENT OF PUBLIC HEALTH

## PRIVATE PHYSICIANS REPORTING CASES

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Lymphogranuloma Venereum .....									1				1
Gonorrhoea (All Forms) ..			1	3		9	34	27	283	55	29	10	451
Syphilis (Congenital) .....								1					1
Acquired—Primary .....							4	1	15	9	2		31
Acquired—Secondary .....								3	3	5	1		12
Acquired—Latent .....						1		1	20	9	2		33
Acquired—Tertiary (Cardiovascular) .....									1	1			2
Acquired—Tertiary (Neurosyphilis) .....									6	2		1	9
Type Undetermined .....									1				1
TOTALS .....			1	3		10	38	33	330	81	34	11	541

Number of Cases of Syphilis—Male 55, Female 34 .....	89
Lymphogranuloma Venereum—Male 1, Female 0 .....	1
Number of Cases of Gonorrhoea—Male 347, Female 104 .....	451
Number of Doctors in the Province Receiving Consultative Service .....	109

NEW CASES OF LYMPHOGRANULOMA VENEREUM, SYPHILIS AND GONORRHOEA  
REPORTED IN ALBERTA—1959

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Lymphogranuloma Venereum .....									1				1
Gonorrhoea (All Forms) ..			1	3	1	11	140	159	1473	580	30	10	2408
Syphilis (Congenital) .....						2		2	2				6
Acquired—Primary .....							6	1	61	14	2		84
Acquired—Secondary .....							1	6	13	16	1		37
Acquired—Latent .....						1		4	52	27	3		87
Acquired—Tertiary (Cardiovascular) .....									1	1			2
Acquired Tertiary (Neurosyphilis) .....									7	2		1	10
Acquired—Tertiary (Other) .....									1				1
Type Undetermined .....									1	1			2
TOTALS .....			1	3	1	14	147	172	1612	641	36	11	2638

Total Number of Cases of Lymphogranuloma Venereum—Male 1, Female 0 .....	1
Total Number of Cases of Syphilis—Male 151, Female 78 .....	229
Total Number of Cases of Gonorrhoea—Male 1,645, Female 763 .....	2,408

TOTAL NUMBER OF CASES REPORTED BY VARIOUS CLINICS OF THE DIVISION  
OF SOCIAL HYGIENE

Sex	Syphilis	Gonorrhoea	Totals
Male .....	95	1,207	1,302
Female .....	44	658	702
Totals .....	139	1,865	2,004

## CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Totals
Lymphogranuloma Venereum....	1	0	1
Syphilis .....	89	1	90
Gonorrhoea .....	451	92	543
Totals .....	541	93	634

## NEW CASES OF SYPHILIS AND GONORRHOEA REPORTED IN NORTHWEST TERRITORIES—1959

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient:

	Under 1 Yr.		1-4 Yrs.		5-14 Yrs.		15-19 Yrs.		20 Yrs. & Over		Age Not Stated		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (All Forms) ..	.....	.....	.....	.....	.....	.....	2	3	30	8	1	1	45
Syphilis													
Acquired—Primary ....	.....	.....	.....	.....	.....	.....	2	.....	17	4	1	1	25
Acquired—Secondary .....	.....	.....	.....	.....	.....	.....	.....	1	4	8	1	.....	14
Acquired—Latent .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	.....	4
Type Undetermined .....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	1	3
TOTALS .....	.....	.....	.....	.....	.....	.....	4	4	53	23	4	3	91

Number of Cases of Syphilis—Male 28, Female 18 ..... 46  
 Number of Cases of Gonorrhoea—Male 33, Female 12 ..... 45



## REPORT OF THE PROVINCIAL LABORATORIES

R. D. STUART, M.D., *Director*

During 1959 the Provincial Laboratories carried out 553,482 examinations, an increase of 26,972 over 1958. This increase is recorded wholly in the Calgary laboratory whose examinations showed a striking increase of 26% over last year's total. The failure of the Edmonton laboratory, for the first time in ten years, to show any increase was largely due to policy in that a certain devolution in examinations and an alteration in technical approach eliminated a considerable number of simpler examinations and allowed the laboratory to concentrate on more complicated procedures. Milk examinations were transferred entirely to the Dairy Branch Laboratory thus centralizing these examinations in a laboratory specifically devoted to this work while the elimination of approximately 6,000 smears for gonococci was due to technical developments indicated last year which allowed greater concentration on the more significant cultural investigations. In both laboratories, however, high percentage increases were recorded in Diagnostic Cytology. Other notable increases were evident in enteric and fungus investigations in the Calgary laboratory and in virus investigations in the Edmonton laboratory.

### SPECIAL TRENDS

In Edmonton a certain subdivision of sections has occurred in both Pathology and Bacteriology. This has been necessitated by certain sections becoming unduly large and cumbrous but more importantly it has allowed a separation of much of the hospital diagnostic work from miscellaneous public health investigations. This trend has permitted better control of hospital diagnostic examinations, has accelerated reporting and has become almost inevitable due to an increasing demand for statistical returns by the Federal Government. This last requirement has produced another trend, to the recording of work performance under unit values instead of under examinations. This use of unit values although still experimental will eventually be a better indicator of the actual work necessitated by various types of examinations than any system currently in use but requires considerable time for an effective changeover in any large laboratory. Probably by 1961 the system may be fully operational in both Calgary and Edmonton laboratories. Increasing involvement in hospital work is also apparent in the southern laboratory in spite of its unfortunate location. According to Dr. Shute this has been particularly evident in diagnostic histology and may be partly explained by the policy of making the Red Cross Crippled Childrens' Hospital an active treatment center for paediatric cases.

## NEW OR SUPPLEMENTARY SERVICES

In this category comes the new virus service established in the Edmonton laboratory with the facilities provided by the recent laboratory extension. Since an adequately trained virologist could not be obtained to take charge of this service it had necessarily to be developed by slow and rather tentative steps. Dr. Williams, previously Assistant Bacteriologist, has made significant contributions to this development which now utilizes the services of two full-time technicians, one part time technician and one full-time assistant in charge of glassware. The virus serology section began experimental procedures in March, 1959, established a routine service for the University Hospital in September and a similar service for Health Units, military establishments, etc. in November. The culture of certain viruses in chick embryos was begun in June and technical methods have been developed to the stage of providing a partial service for the University Hospital and for the Student Infirmary. This procedure is mainly applicable to influenza for which throat washing kits are now available and a Provincial epidemiological service has been mooted. In the still more difficult field of tissue culture, in which viruses are grown in living human or animal tissues in the test tube, experimental procedures were begun in December but considerably more work and probably extra staff training will be required before any routine service can be established.

In Pathology both Dr. Macgregor and Dr. Shute report a greatly increased clinical demand for the cytological examination of cervical secretions, although as Dr. Shute indicates, cervical cancer is detected in an extremely low percentage of symptom-free women by this means. Nonetheless the increased emphasis on cytological examination has led to the realization by doctors that early cancer has no characteristic visual appearance. The consequent increased demand for microscopic examination of tissue biopsies from cervical lesions has been particularly evident. Dr. Macgregor points out that his Division discovered last year 12 cases of early non-invasive cancer of the cervix. The chances of cure in this type of cancer should be very good.

The technique of cervical smear cytology is so thoroughly established in gynecological circles across North America that special provision may have to be made for it in our laboratories. As a tentative step in this direction a technician has been sent to a Cytology Centre for special training in the approved methods.

In Syphilis Serology the Edmonton laboratory has now replaced the Kahn test by the VDRL test. Once experience has been attained this test can be performed rather more quickly than the Kahn test. More importantly it allows the work of this laboratory to correspond directly with that of other Provincial Laboratories across Canada. During 1960 it is hoped to extend this procedure to the southern laboratory. Incidentally, it should be mentioned that the changeover required no fewer than 4,028 separate examinations carried out in parallel with the earlier techniques to allow it to be brought into operation. These examinations are not recorded in Table 1.

## GENERAL SERVICES

*Pathology*

During the year 28,444 blocks of tissues removed during surgery were examined and reported on in our two laboratories. Cancer was present in from 7 to 14% of the cases examined. Tissue reporting, of course, discloses many abnormalities other than cancer and the reports are of value to the physicians and surgeons in checking on clinical diagnosis and often in deciding upon a proper course of treatment. Medico-legal autopsies, carried out by the Edmonton laboratory, continue to increase from year to year and members of the Pathology Division are frequently called by the Courts to give expert medical evidence in such cases. 72 such autopsies were performed in 1959.

*Bacteriology*

The continuing rise in the numbers of *Salmonellas* isolated was referred to in last year's report. The implication is abundantly confirmed by this year's figures which indicate more than twice as many isolations as last year. The large numbers appearing in the Calgary report are due principally to a food poisoning outbreak following a private reception in Fort Macleod. In all, some 200 people were involved and the causative organism, *Salmonella typhi-murium*, was isolated from chicken and potato salad. In an excellent piece of epidemiological investigation carried out by the southern laboratory two of the caterers' food handlers were shown to be excreting the organism which was also isolated from pooled chicken faeces collected on the farm which provided the caterer with the fowl. The probable importance of chickens in the dissemination of human food poisoning *Salmonellae* may also be indicated in the marked rise in *Salmonella heidelberg* infections recorded in Edmonton. For the first time since such records have been kept this organism has superseded *Salmonella typhi-murium* as the second most important cause of human food poisoning. Coincidentally the same organism has for the first time become the most important human pathogen involved in chicken *Salmonellosis* in Alberta. These human figures are especially significant because they are derived from a large number of more or less discrete cases. One small outbreak, ascribable to contact infection only, occurred in an Edmonton hospital. Calgary, however, produced a distinct food poisoning episode due to *Salmonella newport* which was traced to home cured smoked ham. The proprietor of the store and all four members of his staff proved to be symptom-free carriers.

Of considerable importance is the evidence that enteropathogenic *E. coli* have begun, apparently for the first time, to be an important cause of infantile gastroenteritis in this Province. 66 strains were isolated in the northern part of the Province from 42 patients, mainly in the Edmonton area. 55 strains were of the serotype 0119:B14 and the sources indicate the wide spread and high incidence of this organism.

Diphtheria incidence, though small, is regularly recorded in this yearly report. During 1959, 18 strains were isolated in the Edmonton laboratory and 5 in Calgary. The latter were isolated

from Indians of the Blood tribe at Cardston, 4 being from aural infections while one involved the throat.

*Brucella abortus* was isolated from one case in Calgary. This organism was of the usual undulant fever variety presumably of bovine origin. *Brucella melitensis* was isolated in Edmonton from an Eskimo living in Cambridge Bay, N.W.T. This organism was of the same type as those previously isolated from Eskimos in the same area in 1954 and 1956.

Unusual incidents have been encountered in the Tuberculous sections of both laboratories. In Edmonton *Nocardia asteroides* (an organism which may be confused with the tubercle bacillus) was isolated from two patients, on one of whom it was responsible for serious chronic pulmonary disease. From Calgary Dr. Shute reports an interesting autopsy on a 58 year old man which revealed multiple abscesses containing enormous numbers of *M. tuberculosis*. The unusually acute terminal phase of the disease is remarkable in a patient of this age.

#### STAFF

During the year one senior technologist was sent for a special two week course in parasitology given by Dr. Cameron, Consultant to the Federal Department of Health. This course was supported by a Professional Training Grant and the training has been of exceptional benefit to the parasitological diagnostic work in the Edmonton laboratory.

## DEPARTMENT OF PUBLIC HEALTH

TABLE 1  
EXAMINATIONS PERFORMED IN THE PROVINCIAL LABORATORIES  
YEAR 1959

## CONTROL OF COMMON INFECTIONS

	Edmonton	Calgary
Diphtheria .....	5,424	1,533
Enteric-dysentery .....	6,071	2,933
Fungus infections .....	3,238	688
Intestinal parasites .....	392	188
Naso-pharyngitis .....	10,534	1,775
Tularemia serology .....	1,528	693
Tuberculosis .....	12,648	2,353
Undulant Fever serology .....	1,528	693
Whooping cough .....	60	24

## OTHER DIAGNOSTIC AND MISCELLANEOUS

Animal inoculations (other than T.B.) .....	156	59
Antibiotic etc. sensitivities—disc .....	157,887	51,156
tube .....	24	110
Blood cultures .....	1,230	156
Leptospirosis .....	312	.....
Miscellaneous .....	20,663	5,516
Paul Bunnell test .....	941	437
P.M. Bacteriology .....	219	.....
Referred cultures .....	476	46
Special investigations .....	7,556	51
Trichomonas .....	8,698	296
Virus infections .....	3,304	.....

## VENEREAL DISEASE CONTROL

Chancroid, etc. ....	4	.....
Gonorrhoea—smears .....	2,919	6,487
cultures .....	9,347	325
Syphilis .....	118,235	42,239

## SANITARY BACTERIOLOGY

Food Products .....	58	87
Milk and Cream .....	187	608
Water .....	12,895	7,787

## PATHOLOGY

Utensils .....	.....	.....
Diagnostic cytology—blood smears .....	164	201
cervical smears .....	329	.....
bone marrow .....	179	4
fluids .....	555	908
Routine diagnostic histology .....	21,551	6,460
Routine autopsy histology .....	9,166	447
Referred diagnostic histology .....	39	.....
Pregnancy diagnosis—frog test .....	690	.....
rabbit test .....	15	.....
TOTALS .....	419,222	134,260

TABLE 2  
CONTROL OF ENTERIC-DYSENTERY INFECTIONS

## EXAMINATIONS

	Edmonton	Calgary
Blood and Clot Cultures .....	1,295	681
Faeces Cultures .....	2,784	1,469
Urine Cultures .....	91	22
Other examinations .....	87	.....
Serological tests .....	1,814	761

## DETAILS OF ISOLATIONS INCLUDING REPEATS

SALMONELLA		
S. typhi .....	25	6
S. paratyphi B .....	7	1
S. typhi-murium .....	15	116
S. heidelberg .....	80	19
S. newport .....	3	63
S. tennessee .....	7	1
Other Salmonellae .....	7	6
SHIGELLA		
Shigella sonnei .....	79	41
Shigella flexneri .....	41	15
Shigella boydii .....	2	.....

## ENTEROPATHOGENIC E. COLI

Type 0119:B14 .....	55	.....
Other types .....	11	.....



TABLE 3  
CONTROL OF TUBERCULOSIS

EXAMINATIONS	Edmonton	Calgary
Microscopic .....	6,462	903
(positive) .....	287	18
Culture .....	3,965	694
Animal inoculations .....	2,221	756

SPECIMENS	No.	Positive	No.	Positive
Pulmonary .....	4,820	362	1,046	16
Meningeal .....	81	11	24	.....
Renal .....	921	72	334	3
Other .....	392	34	246	2

TABLE 4  
CONTROL OF SYPHILIS—EXAMINATIONS

	Edmonton	Calgary
CEREBRO-SPINAL FLUIDS Wasserman (Kolmer) .....	1,605	919

BLOODS		
Presumptive Kahn or VDRL .....	95,738	30,860
Standard Kahn .....	7,192	4,992
Quantitative Kahn or VDRL .....	881	316
Wassermann (Kolmer) .....	12,819	5,152
Blood and cerebro-spinal fluid 'positive' to reaction .....	488	215
Blood and cerebro-spinal fluid giving reaction below lab. diagnostic level .....	1,595	945
PRE-MARITAL BLOODS .....	12,725	8,486
Positive to reaction .....	12	7

TABLE 5  
SANITARY CONTROL MILK AND CREAM

	Edmonton	Calgary
MILK AND ICE CREAM (No. of specimens) .....	112	245
Coliform test .....	51	138
Plate count .....	112	245
Phosphatase .....	12	120
Butter fat .....	12	105

TABLE 6  
SANITARY CONTROL WATER

	Edmonton	Calgary
WATER (No. of specimens) .....	6,126	3,470
Coliform test—Presumptive .....	6,096	2,565
Confirmed .....	1,678	910
Special .....	197	837
Plate count .....	4,924	3,475
Waters found bacteriologically unsuitable .....	594	573

TABLE 7  
SERA AND VACCINES DISTRIBUTED  
(All supplied by Connaught Laboratories unless otherwise noted)

IMMUNIZING AGENTS		Edmonton	Calgary
<b>DIPHTHERIA</b>			
Diluted Diphtheria Toxoid—1 person	59	49	
c.c. reactors	79		
Schick Test Toxin—25 persons	415	456	
Toxoid—1 person	406	291	
6 c.c.	118	123	
<b>DIPHTHERIA COMBINED</b>			
Diphtheria and Pertussis—1 person	92	161	
9 persons	22	64	
Diphtheria, Pertussis and Tetanus—1 person	5,373	2,961	
9 persons	1,554	927	
Diphtheria and Tetanus—1 person	1,538	774	
9 persons	707	420	
Diphtheria, Pertussis, Tetanus and Polio—10 cc.	11,174		
Diphtheria, Tetanus and Polio—10 cc.	2,303		
<b>ENTERIC</b>			
Typhoid-Paratyphoid—1 person	719	328	
10 cc.	532	116	
<b>ENTERIC COMBINED</b>			
T.A.B.T.—3 cc.	901	1,066	
25 c.c.	191		
<b>MEASLES</b>			
Anti-Measles—5 c.c.	1,142	1,007	
Immune Serum Globulin—2 c.c.	1,968		
5 c.c.	2,507		
<b>ROCKY MOUNTAIN SPOTTED FEVER</b>			
(Lederle Lab.)—3 c.c.	19	5	
50 c.c.		2	
<b>SMALLPOX—</b>			
1 point	3,756	2,829	
10 point	7,844	3,800	
<b>STAPHYLOCOCCAL INFECTION</b>			
Staphylococcus Toxoid—2 c.c.	716	316	
<b>TETANUS (see Diphtheria and Enteric combined)</b>			
Tetanus Toxoid—1 person	3,014	2,962	
30 c.c.	12		
<b>WHOOPING COUGH (see Diphtheria combined)</b>			
Pertussis Vaccine—1 person	123	401	
9 persons	5	27	
<b>VACCINE, OTHER</b>			
Autogenous Vaccine (Prov. Lab.)—25 c.c.	12	21	
Rabies Vaccine—14 c.c.	15		
Rabies Anti-Serum—1000 units (Lederle Lab.)	4		
Poliomyelitis Vaccine—10 c.c.	33,398		
T.A.B.T.D.—25 c.c.	14		

## THERAPEUTIC AGENTS

	Edmonton	Calgary
<b>DIPHTHERIA</b>		
Antitoxin—1,000 units	169	65
40,000 units	78	36
<b>GAS GANGRENE</b>		
Antitoxin—10,000 units (Connaught Lab.)	395	382
<b>SCARLET FEVER</b>		
Antitoxin—3,000 units (vial)	23	7
<b>SNAKEBITE ANTIVENIN</b>		
(John Wyeth & Bros. Ltd.)—15 c.c.	3	
<b>STAPHYLOCOCCUS</b>		
Antitoxin—10,000 units	16	19
20,000 units	54	31
<b>TETANUS</b>		
Antitoxin—1,500 units	1,867	2,748
20,000 units	115	114

TABLE 8  
MINIMUM COMMERCIAL VALUE ASSESSED FROM RECOMMENDED  
PROVINCIAL SCALES

Examination	Edmonton	Value	Calgary	Value	Total
Diphtheria .....	5,424	\$ 5,424	1,533	\$ 1,533	\$ 6,957.00
Enteric dysentery .....	6,071	12,142	2,933	5,866	\$ 18,008.00
Fungus infections .....	3,238	9,714	688	2,064	11,778.00
Intestinal parasites .....	392	392	188	188	580.00
Naso-pharyngitis .....	10,534	10,534	1,775	1,775	12,309.00
Tularemia serology .....	1,528	764	693	347	1,111.00
Tuberculosis .....	12,648	25,296	2,353	4,706	30,002.00
Undulant Fever serology .....	1,528	764	693	347	1,111.00
Whooping Cough .....	60	120	24	48	168.00
Animal inoculations (Other than T.B.) .....	156	468	59	177	645.00
Antibiotic etc. sensitivities—disc .....	157,887	31,758	51,156	10,231	41,989.00
tube .....	24	24	110	110	134.00
Blood cultures .....	1,230	2,460	156	312	2,772.00
Leptospirosis .....	312	624	.....	.....	624.00
Miscellaneous .....	20,663	20,663	5,516	5,516	26,179.00
Paul Bunnell test .....	941	1,882	437	874	2,756.00
P.M. Bacteriology .....	219	438	.....	.....	438.00
Referred cultures .....	476	952	46	92	1,044.00
Special investigations .....	7,556	22,668	51	153	22,821.00
Trichomonas .....	8,698	8,698	296	296	8,994.00
Virus infections .....	3,304	no charge allocated	.....	.....	.....
Chancroid, etc. ....	4	8	.....	.....	8.00
Gonorrhoea—smears .....	2,919	2,919	6,487	6,487	9,406.00
cultures .....	9,347	9,347	325	325	9,672.00
Syphilis .....	118,235	236,470	42,239	84,478	320,948.00
Food products .....	58	116	87	174	290.00
Milk and Cream .....	187	374	608	1,216	1,590.00
Water .....	12,895	25,790	7,787	15,574	41,364.00
Utensils .....	.....	.....	.....	.....	.....
Diagnostic cytology—blood smears....	164	328	201	402	730.00
cervical smears .....	329	658	.....	.....	658.00
bone marrow....	179	358	4	8	366.00
fluids .....	555	1,665	908	2,724	4,389.00
Routine diagnostic histology .....	21,551	86,204	6,460	25,840	112,044.00
Routine autopsy histology .....	9,166	36,664	447	1,788	38,452.00
Referred diagnostic histology .....	39	156	.....	.....	156.00
Pregnancy diagnosis—frog test .....	690	3,450	.....	.....	3,450.00
rabbit test ....	15	75	.....	.....	75.00
-	419,222	\$560,367	134,260	\$173,651	\$734,018.00

## DIVISION OF SANITARY ENGINEERING

**H. L. Hogge, B.Sc., P.Eng., Director**

This Division assists the Department in achieving a high standard of living and good health for the residents of Alberta by conducting specific programs to ensure, or assist in achieving, healthful environmental conditions.

The standards of design, construction and operation of public waterworks and sewerage systems and also the design of public swimming pools are checked and a high standard required. Short courses are held each year for the operators of water and sewage systems, and swimming pools. The pollution of Alberta rivers is regularly evaluated as is the quantity and quality of waste waters released to them. A regular system of air pollution evaluation was started in 1959 to determine existing levels of pollution in urban, industrial and gas and oil field areas. New industries proposing to construct plants in Alberta are reviewed as to control of both air and water pollution.

Sanitation factors, including food and milk handling, refuse disposal, construction of logging camps, and tourist accommodation in all parts of the province not served by local Health Units is supervised by qualified sanitary inspectors of the Division. These sanitarians also assist the staffs of the Health Units with particular problems and foster reasonable uniformity in interpretation and application of public health regulations. In 1959 the special survey of swimming pools in the province was continued from 1958 to assist in achieving an improvement in swimming pool operation.

Inspection of plumbing and individual sewage disposal systems is carried out by Provincial Plumbing Inspectors in all areas of the province outside of the cities, towns and villages that have their own inspectors. The Provincial Inspectors assist and guide the local inspectors and arbitrate appeals from rulings of local inspectors. The plans of all hospitals in the province are checked before they are let for tenders.

The staff of the Division at the end of 1959 was:

Director, 5 Sanitation Engineers, 2 Chemists, 1 Laboratory Assistant, 3 Sanitary Inspectors, 4 Plumbing Inspectors and 3 Stenographer-Clerks.

The activities of the Division are given in more detail in the following section's reports.

1. Municipal Engineering
2. Water and Air Pollution
3. Sanitary Inspection
4. Plumbing Inspection

## MUNICIPAL ENGINEERING

As in previous years much of the time spent by the two engineers in this phase of Sanitary Engineering was devoted to plan checking for both new systems and extensions to existing systems.

All the towns proposing to install new water and/or sewerage systems were inspected before they received approval for a Provisional Health Certificate. In most cases one of the Engineers attended the respective communities to speak at their public meeting and answer questions regarding both the health and engineering aspect of the proposed system. These meetings are held before the community takes the respective money bylaw (water and/or sewer) to a vote.

Approximately 60% of the communities having water and/or sewerage systems were visited on routine inspection trips. Some of these communities were visited more than once during the year. Before the end of next year (1960) it is expected that all communities will have been visited at least once since 1958.

Many of our inspection trips in recent years have been made to places with definite problems. This year this included Westlock, Elk Point, Waskatenau, Evansburg and Barrhead.

The Operator's School was again very successful. This year the 3rd and 1st year schools were sponsored. Present attendance figures for these schools are as follows:

(a) Completed 1st year .....	144
(b)       "       2nd year .....	66
(c)       "       3rd year .....	45
(d) Communities represented .....	103

A graduate course will also be sponsored in 1960 along with the 1st and 2nd year courses.

The following tables are given to show the 1959 waterworks and sewerage systems construction costs.

### A. New Systems

	Provisional Certificate		Final Certificate	
	No. of Certificates	Estimated Cost	No. of Certificates	Estimated Cost
Water .....	10	\$ 666,234.00	10	\$ 591,053.00
Sanitary Sewer .....	11	577,695.00	8	471,659.00
Storm Sewer .....	3	186,375.00	1	88,000.00
Totals .....	24	\$1,430,304.00	19	\$1,150,712.00
Bowness (using 50% Est. Cost—1958)		Water	3	544,650.00
		Sewer	1	449,800.00
Montgomery (using 90% Est. Cost —1958)		Water	2	551,400.00
		Sewer	1	428,000.00
		TOTAL	26	\$3,124,562.00

### B. Extensions To Existing Systems

	Provisional Certificate		Final Certificate	
	No. of Certificates	Estimated Cost	No. of Certificates	Estimated Cost
Water and Sewer Mains .....	33	\$ 9,087,974.00	102	\$ 6,829,121.00
Water Supply and Treatment .....	12	2,028,765.00	21	1,634,783.00
Sewage Treatment .....	5	669,800.00	6	788,500.00
Storm Sewers .....	4	2,520,000.00	7	3,356,176.00
Total .....	54	\$14,306,539.00	136	\$12,608,580.00
GRAND TOTAL .....				\$15,733,142.00



There were a total of 250 certificates issued; of these 10 were superseded. The 240 remaining certificates broken down into - 80 provisional certificates and 160 final certificates issued to 101 different communities. This represents 49.5% of the communities with water and/or sewer in the province.

The above indicates an increase of 24% certificates issued and an increase of 59.5% in the value of work commissioned.

There was a slight increase in the number of new systems compared to that of 1958. A decline in the number of new systems is to be expected in the future as the cost involved in such installation is beyond reach of the smaller communities.

The year 1959 saw the beginning of the installation of water and sewer in the towns of Bowness, Montgomery and Grand Centre. The following table "C" indicates the number of incorporated towns and villages with or without water and sewer systems:

### C.

*Population Range	Water System With	System Without	Sewer System With	System Without	Name of Community Without Water and/or Sewer
over 10,000	6	....	6	....	
2000 - 10,000	36	....	36	....	
1500 - 2000	6	....	4	2	Blairmore & Coleman
1000 - 1500	23	2	23	2	McMurray & Bellevue (S) McMurray & Sylvan Lake (W)
500 - 1000	36	11	44	3	
250 - 500	51	16	53	14	
Under 250	12	36	11	37	
**TOTAL (1)	170	65	177	58	
Pop. Served	782,133		785,993		
Others	15	1	10	6	
***TOTAL (2)	185	66	187	64	

\*1959 Census

\*\*Total for incorporated communities in Alberta

\*\*\*Total number of systems in Alberta—includes 3 National Parks, 2 Provincial Institutes and 11 unincorporated centres.

There are 201 different water and/or sewerage systems in the province serving a population of 805,692 or 66.2% of the total population of the province (1,220,611).

It is interesting to note that there are 67 communities under 500 with water and/or sewerage systems in the province and 15 communities with water and/or sewerage systems under 250 population. Edberg (pop. 167) is the smallest incorporated village having both water and sewerage systems.

### SWIMMING POOLS

This phase of Municipal Engineering has taken more time this year than previous years and in 1960 more time is expected to be spent discussing and checking plans for approval and following construction of swimming pools.

During 1959 only two pools were approved although numerous different pools were discussed.

In May, three weekend courses for Swimming Pool Operators were conducted in Edmonton, Calgary and Lethbridge. This

school was co-sponsored with Cultural Activities, University of Alberta and the Edmonton Parks Division. Attendance at these schools was as follows:

Edmonton .....	84
Calgary .....	58
Lethbridge .....	40
<b>TOTAL .....</b>	<b>182</b>

As a result of the course there was a marked increase in the interest by the operators to produce a clear and safe water. This was brought about due to an understanding of their equipment and its use. Thus, the overall result was, improved sanitary conditions throughout the province. It is expected that this school will be continued in the years to come.

Although the sanitary conditions have improved, there is still a need for engineering help to correct swimming pool equipment faults.

Special record forms were supplied to all swimming pools in the province and will also be supplied for the 1960 operating year.

## WATER AND AIR POLLUTION STUDIES

Water pollution studies were continued in 1959 to assess current pollution in the rivers of the province and to check the efficiency of waste treatment or control practices by municipalities and industries. Air pollution studies were greatly expanded during the year and much was accomplished in providing adequate equipment to properly assess air pollution levels. Continuous measurement of total sulfur gases, hydrogen sulfide and smoke in the air can be carried out now as well as continuous recording of wind speed and direction. Surveys by 'Exposure Cylinder' technique were also expanded.

## WATER POLLUTION

Pollution surveys were made of the main rivers this year with repeat surveys of the Athabasca and North Saskatchewan Rivers at monthly intervals during the winter months.

The Athabasca River was found to have appreciable color and odor as well as B.O.D. as a result of pulp mill operation. The effect extended some 200 miles down river. Repeated tests of the mill effluent showed large concentrations with some variations in amount.

The North Saskatchewan River showed additional improvement in residual dissolved oxygen over 1958 conditions. Repeated tests during winter months showed the water to be free of objectionable odors. It is significant that the City of Edmonton completed their 'interceptor sewer' program to serve the only section of the City not previously connected to the new sewage treatment plant. Tests in December showed the dissolved oxygen to be 4 to 5 ppm. in the river 150 to 200 miles downstream. Also of general interest, a start was made in constructing a power dam on the headwaters of the river which will increase winter river flows when it is completed.

Further studies were made of the Red Deer River and sewage effluents entering it. The City of Red Deer has made preliminary studies to provide sewage treatment facilities.

The Bow River and the effluents from the City of Calgary and adjacent industries were checked four times and the oil refineries, in detail, on one occasion. Significant odors of an oily nature have been noted and further studies are planned.

The Oldman River at the southern part of the province was surveyed once and a number of inspections made of the Lethbridge sewage treatment plant extensions. These extensions are scheduled for completion by April, 1960.

The Town of Taber reported trouble at their water treatment plant apparently caused by a breakdown of waste control at a sugar beet factory.

The South Saskatchewan River downstream from Medicine Hat was surveyed on one occasion and pollution found to be quite low. Similarly samples of the Peace River were analyzed on one occasion and pollution found to be light.

New industries establishing in the province were reviewed as to waste discharges. Included here were two sulfur plants and two tire manufacturing plants. Also, discussions have been held with representatives of the company constructing a pilot plant for processing the Athabasca tar sands. The site was visited on one occasion prior to start-up and further visits and discussions are planned.

### AIR POLLUTION

The 'exposure cylinder' surveys for hydrogen sulfide and sulfur dioxide were expanded by 25 new stations in six areas, to give a total of 41 stations in 10 areas of the province. Two of these areas are the cities of Calgary and Edmonton.

Also 'dustfall cans' and a continuous spot tape sampler for smoke and dust have been set in both Calgary and Edmonton.

Continuous measurement of air pollutants was commenced in September following completion of a 27 foot house trailer as a mobile air pollution laboratory. The equipment consists of the following:

1. A 'Titrilog' unit to measure and record total sulfur gases, i.e. sulfur dioxide, hydrogen sulfide and mercaptans.
2. A spot tape hydrogen sulfide sampler (continuous sample).
3. A spot tape sampler for smoke and dust (continuous sample).
4. A Beckman Whitley instrument to record continuously wind speed and direction.

Also a gas wash bottle assembly is provided with the trailer so that spot tests can be run away from the trailer.

The mobile laboratory was used near the Pincher Creek Sulfur Plant for two months and at the Okotoks Sulfur Plant for one month and in Calgary for about three weeks.

New industries establishing in the province are reviewed as to air discharges similar to the check on water pollution.

## SANITARY INSPECTION SECTION

In 1959 there were positions for 59 Sanitary Inspectors in Alberta, in the Provincial Department, City Health Departments and Health Units. At the year's end there was one vacancy. Some difficulty was being experienced in obtaining a suitably trained person to fill this vacancy.

An 'In Service Training Course' for Sanitary Inspectors was held in April under the auspices of the Department of Extension of the University. As on previous occasions, the Faculty of Agriculture and the Canadian Institute of Sanitary Inspectors co-operated with the Division of Sanitary Engineering in the preparation of the course. The course was well attended. The consensus of opinion appeared to be that the course was of immense value to those who attended.

For the third successive year no compulsory milk pasteurization bylaws were passed though a few communities expressed interest in such bylaws.

A trend which has developed in recent years in many parts of Canada and the United States became quite marked in Alberta in 1959. The trend is towards the concentration of milk processing in large plants where full advantage can be taken of labour saving equipment. Pasteurized milk is then distributed over considerable distances into areas previously served by small plants.

Only one new pasteurizing plant was opened in Alberta in 1959. It was established in Calgary as a branch of a company operating in Lethbridge. Two plants in Drumheller discontinued operations, together with plants formerly operating in Bassano, Didsbury, East Coulee and Medicine Hat. At the year's end there were 76 plants supplying pasteurized milk to the public and a further eight supplying to schools and institutions.

The transportation of milk over considerable distances frequently involved distribution in areas under several local health authorities. This presented difficulties in supervision from time to time. These had not been fully resolved at the year's end.

Certain changes in the restaurant regulations came into effect on April 1st, 1959. These changes require that restaurants obtain annual permits from Local Boards of Health. The permit system is intended to provide the health authority with a control of public health conditions in restaurants. Some administrative problems were encountered as the system was introduced. Solutions to most of these problems had been worked out by the end of the year. The limited period of operation of the system precludes any comment on its effectiveness in this report.

The Provincial Sanitary Inspectors continued the program of previous years designed to assist local health authorities, particularly in non-health unit areas, to deal with sanitation matters. In addition they engaged in and assisted in a variety of activities closely related to this program.

A total of 948 inspections were made in 1959, approximately the same as the 926 inspections made in 1958.



Seventy-eight inspections were made at dairy farms and milk plants in 1959 compared with 126 in 1958. This reduction is compensated by an increase in inspections at restaurants and other food handling premises from 301 in 1958 to 397 in 1959. The increase in inspections in the second category was occasioned in part by the introduction of the restaurant permit system. Some extra inspections were made to help local health authorities get this system in operation. Another part of the increase in inspections in restaurants and food handling premises was due to inspections in beverage rooms. New regulations which became effective early in 1959 clarified the health authority's responsibility in these premises. A program of beverage room inspections was therefore commenced in 1959. The Alberta Liquor Control Board co-operated very fully so that administration of the new regulations was generally satisfactory.

The number of inspections in 1959 in housing categories was 119 compared with 120 in 1958. These include inspections at tourist accommodation, trailer coach parks, and industrial and construction camps. Included are 25 inspections at logging camps. These camps housed 614 men and were located between 12 and 50 miles from roads used for other than access to the camps. Some of these camps provided very satisfactory accommodation while others were quite unsatisfactory. Improvement was noted in those which had been unsatisfactory in the previous year. As in previous years, the most frequently recurring fault was in the matter of bathing and laundry facilities. In 20 of the 25 camps visited such facilities were quite unsuitable or entirely absent. In other specific features, such as sleeping accommodation, kitchen and dining room facilities, toilets and water supplies, the majority of the camps were found to be satisfactory.

One hundred and nineteen inspections were made at wells, other private water supplies and private sewage disposal systems. These inspections are usually made at farm homes or rural schools in response to requests from users or because of unsatisfactory laboratory reports. These inspections provide an opportunity to give advice to the home owner or responsible authority to enable correction and thus protect the health of users. They often provide a suitable climate for discussion of unsanitary conditions which the Inspector may observe.

A special project directed towards improvement in swimming pools which had been begun in 1958 was continued in 1959. This project occupied one inspector for 8 weeks during the year. In all 59 inspections were made at 45 pools in 29 Alberta communities. The following table shows some of the findings of the 1959 project:

	No data	Poor	Fair	Good	Very Good	Total
Condition of equipment .....	4	7	17	17	10	49
Clarity of water .....	4	12	9	10	14	49
Bacterial quality of water.....	9	16	6	12	6	49

The two year project has resulted in noticeable improvement in conditions at swimming pools. Pool employees are generally better informed so that they are able to obtain the best possible results from equipment available to them.



Co-operation with other Departments of the Government continued to be quite satisfactory. As one example it may be noted that the Chief Sanitary Inspector was asked to attend two meetings of the Dairy Manufacturing Plant Licensing Advisory Board. In this way it was possible to acquaint the Board with the opinions of the health authority relative to licensing of milk pasteurizing plants.

New communities continued to receive particular attention from Provincial Sanitary Inspectors. The Chief Sanitary Inspector has been a member of the Board of Administrators of the New Town of Lodgepole since the Board was organized. In September, 1959, he was appointed a member of a similar Board for the New Town of Swan Hills. It is anticipated that Swan Hills which is literally being carved out of the forest will grow rapidly. This has placed a great deal of responsibility on the Board of Administrators and has required considerable of the Board member's time.

The Provincial Sanitary Inspectors carried out a diversified program in the field of sanitation during the year. They provided a basic inspection service in those parts of the province not served by health units or city health departments. In addition, a special swimming pool project was proceeded with and various other undertakings in programs having a bearing on public health were carried out.

### PLUMBING INSPECTION

The staff of this section was increased from two to four in 1959. One of the new inspectors is stationed in Red Deer and the other works out of the Edmonton office.

The addition of these inspectors has definitely improved the service which this office is now able to give to home owners, plumbing contractors, local plumbing inspectors, etc. The fact that we are now able to have inspectors in the field has increased the number of plumbing permits issued during 1959. The increase over 1958 is 48.26%.

This office issued 384 plumbing permits, at a value of \$3,358.35 during the 1959 calendar year. This is an increase of 125 permits issued and an income increase of \$598.35 over 1958.

The number of plumbing fixtures installed during the year totalled 88,115 which represents approximately 18 million dollars worth of plumbing installed during 1959. The number of individual types of fixtures installed was as follows:

Water Closets .....	23,602	Lavatory Basins .....	24,117
Baths .....	14,208	Sinks .....	15,009
Laundry Tubs .....	2,316	Special Fixtures .....	8,863

The number of privies eliminated through the installation of plumbing was 1608.

The plumbing plans of all hospitals which are to be built in Alberta are now coming to this office for approval before the plans are put in the hands of contractors for bidding purposes. This step has allowed the architect and the mechanical engineer to correct these plans before bids are received and has thereby

permitted a much more accurate bid being received. It has also done away with the confusion and added costs which result when addendums to plans and specifications are sent out from the office of the architect after an installation has commenced.

During 1959 the Extension Division of the Department of Agriculture arranged 26 plumbing short courses throughout the province. Our inspectors attended these courses and instructed urban and rural dwellers as to the proper method of installing a plumbing system to serve their homes. These courses are very well received and have brought to our attention the fact that people living in rural homes are anxious to have any plumbing installed in their homes inspected by a competent inspector.

During 1959 an investigation was completed with regard to acceptable methods of sewage disposal for the Canmore area. This investigation revealed that sub-soil conditions throughout most of this area, as well as the high water table which is prevalent, could only allow the use of tight pumpout tanks for the collection of sewage or sewage effluent. The contents of these tanks would be pumped into a tank wagon provided for this purpose and then it would be taken to an approved location for disposal.

There was a marked increase in requests received for 'Certificates of Approval' during 1959. It is becoming the practise of Architects, School Boards, Grain Companies, Gas and Oil Companies, Central Mortgage and Housing Corporation and private owners to request these certificates before the final payment or settlement is made with the plumbing contractor.

The number of trailer parks constructed during 1959 increased sharply and in the large majority of cases plumbing services were provided. A considerable amount of time was devoted to these installations in order to ascertain that the services were installed correctly. Plumbing contractors are not familiar with our requirements as yet, inasmuch as these requirements are not included in our regulations.

## CIVIL SERVICE NURSE

K. E. Jorgensen, R.N.

In looking back over the past year, we are made very conscious that the general health pattern changes constantly. This year we find that our most increasing problem is 'psychogenic'. Several employees have been hospitalized at Oliver for treatment and some are undergoing psychiatric care while employed. Our most difficult cases are those who are mentally ill but are not aware of their condition.

We are always happy to see people who look upon good health as a very important possession. These people are generally anxious to learn how the errors and chances of unhealthiness can be avoided or certainly reduced.

During the past year, there have been many more interested in and can see the value of good nutrition in reference to good health. Proper diets for the 'underweight' and 'overweight' groups are certainly of increasing concern. In some cases we advise the patient to consult their doctor.

In speaking individually to about seven thousand civil servants annually we do stress the importance of: (1) maintaining good health, (2) striving to prevent illnesses and accidents and (3) getting medical attention at the first sign or symptom of trouble.

We have been encouraged and reassured of the value of detecting urgent cases. An outstanding case was one with an internal haemorrhage. This patient walked into our office and two hours later she was undergoing surgery. Her doctor told her, later, that her case would have been fatal if it had been neglected for another two or three hours.

We have referred five cases, some with rather insignificant looking sores, to the doctors who have diagnosed them as skin cancer. One man had been loosing sleep for over a year because he had a sore on his arm that would not heal. He felt sure it was cancer and was afraid to see his doctor. We removed an embedded sliver and the patient was immediately relieved.

Again we take this opportunity of thanking all who so kindly assisted those who were ill or injured while at work. We also thank those in 'personnel' who are so co-operative in making staff appointments - it is such a time-saver.

During 1959 approximately 82 employees were driven either home, to the hospital or to the doctor's office. This would include very ill or injured patients or ones with an infectious disease. The following figures we wish to submit.

	Office Calls	Home Calls	Compen- sation	Certificates
January	537	53	19	52
February	376	33	5	13
March	463	54	11	21
April	454	57	11	40
May	455	39	21	27
June	415	31	11	13
July	295	31	15	25
August	367	21	11	15
September	369	33	12	21
October	406	50	12	19
November	463	47	20	29
December	445	37	18	23
1959	486	486	166	298
1958	5,231	431	166	246

## DIVISION OF ARTHRITIS SERVICES

**R. K. Thomson, B.Sc., M.D., R.C.P.(C), F.A.C.P., Director**

The Division of Arthritis, with clinics in Edmonton and Calgary, accepts patients up to the age of twenty-five years. There has been no change in policy during the year 1959, but the Calgary Clinic was removed from the Holy Cross Hospital to 2104 - 2nd Street, S.W., Calgary.

As will be seen from the statistical report which is attached, there is no essential change in the number of new patients seen during the year. The new cases almost completely balance the cases which became ineligible. An attempt is made, however, to keep in contact with former patients who are now ineligible due to age. There was one death. So far as can be determined from complete autopsy findings, the death was due to an illness not related to Rheumatoid Arthritis.

As in 1958, there is a maintained increase in the hospital days and total treatments.

Some newer cortocoid preparations have been available, and where they have been shown to be of value they have been used in the treatment of some of the cases. These newer preparations have not produced any basic change in the treatment of Rheumatoid Arthritis in the Division. The care of these patients at this time is essentially that of education of patients and family plus the application of the fundamentals of rest, exercise, physiotherapy and medical adjuncts where necessary.

### STATISTICAL COMPILATION OF CASES TREATED IN 1959

	Edmonton	Calgary	Total
Initial examinations made .....	17	8	25
Repeat examinations made .....	136	13	149
Rheumatoid Arthritis cases in 1959—new .....	14	5	19
Total Rheumatoid Arthritis Cases under the Division of Arthritis .....	106	47	153
Hospital Days .....	528	711	1,239
Physiotherapy treatments .....	280	59	339
Injections .....	161	212	373
Office visits .....	29	268	297

### TREATMENTS

January 1st to December 31st, 1959

Hospital days .....	1,239
Clinic and office visits .....	471
Physiotherapy treatments .....	339
Other: including surgical, injections and special procedures .....	385
Total Treatments .....	<u>2,434</u>

## **DIVISION OF CEREBRAL PALSY CLINICS**

**F. G. Day, BSc, MD, LMCC, FRCPS**

**MChOrth, FICS, FAACP, Director**

During 1959, at the Cerebral Palsy Clinics in Edmonton and Calgary, a total of 94 new patients were seen and diagnosed; of these 71 were cerebral palsy. During 1958, 112 new patients were seen at approximately the same number of examining clinics. This decline shows that we are succeeding in decreasing the very extensive backlog of patients existing prior to the commencement of the Government sponsored clinics; and that the public are becoming aware that these facilities exist. The birth rate of cerebral palsy remains constant, at 7 per 100,000 general population. The facilities available at these clinics will become closer to being adequate as we progressively decrease the backlog.

The treatment of cerebral palsy, a very old disease, is relatively a new science and therefore a rapidly changing one. A number of the Government Staff attended the Western Regional Workshop on Cerebral Palsy at Winnipeg, in May, 1959; this proved to be a stimulating and informative conference. The Director of the Cerebral Palsy Clinic in Calgary, Dr. T. Richardson, attended the American Academy for Cerebral Palsy Meeting in Los Angeles. It is only with these attendances that the clinics can continue to remain up to date and efficient.

We are still finding many undiagnosed older patients who have reached the age where treatment is most difficult. We feel, however, that our educational program in training medical students, nurses and physiotherapists will assist us, in the future, in discovering these type of patients earlier.

Standardization of the classification system for both diagnosis and treatment has now been instituted in both Clinics. It will take several years before this classification is complete but will no doubt be of the greatest assistance to us in determining the efficiency of treatment methods.

It has become increasingly evident that to function economically, treatment facilities should largely be reserved for those children who have the mental ability to be educable. We have, therefore, used the services of the Provincial Guidance Clinics in determining the mental status of all patients prior to admission for treatment in the clinics.

A report elaborating our statistical accomplishments for the year 1959 follows:



	Edmonton	Calgary	Total
Number of examining clinics .....	42	42	84
Number of Staff rounds .....	17	....	17
Number of Case Conferences .....	6	....	6
Total number of patients examined .....	452	262	714
Total number of patients examined by Pediatrician .....	120	21	141
Total number of patients examined by Dentist .....	41	42	83
Number of rechecks .....	388	232	620
Number of new cases .....	64	30	94
(a) Cerebral Palsy .....	45	26	71
(b) Pending .....	5	4	9
(c) Miscellaneous .....	14	....	14

### *Patients on Active Treatment*

Number of patients treated on rotating basis .....	166*	73	239
Monthly average of those who received treatment .....	60	29	89
* 48—new cases			
12—children from special classes			
32—children from regular classrooms (some attending after school hours)			

### *Physiotherapy*

Number of treatments .....	3,621	3,341	6,962
Number of cases benefiting .....	127	62	189

### *Progress*

Co-ordination .....	5	4	
Sitting balance .....	3	2	
Reciprocation (tricycle) .....	5	....	
Crawling .....	3	1	
Walking (a) with help unbraced .....	8	....	
(b) in walker .....	4	....	
(c) in parallel bars .....	4	3	
(d) with crutches .....	1	1	
(e) with canes .....	3	2	
(f) unaided (braced) .....	....	4	
(g) unaided (not braced) .....	7	2	

### *General Improvement*

Minor gait improvement .....	17	22	
Considerable gait improvement .....	15	11	
Deformities reduced .....	31	6	
Group muscle control .....	21	....	
General muscle control .....	20	7	
Minor activity increase .....	12	16	
Greater independence in wheelchair .....	2	....	
No progress (some new cases) .....	20	16	

### *Bracing*

(a) for control for first time .....	17	7	
(b) removed .....	11	....	
(c) increased .....	2	....	
(d) special chair for posture .....	4	7	
Physical training class .....	12	....	
Physiotherapy home program .....	32	....	
Total parent instructions .....	212	no record	51
Home visits .....	2	....	
Casts .....	8	....	
Muscle tests .....	2	....	

*Occupational Therapy*

	Edmonton	Calgary	Total
Number of treatments .....	1,666	2,887	4,553
	(11 mos.)		
Number of cases benefiting .....	86	64	150
Activities of daily living—			
(a) dressing .....	21	22	
(b) feeding .....	10	7	
(c) other (bathroom, kitchen, household) .....	11	8	
Upper limb function—			
(a) range and duration of used movement .....	27	6	
(b) co-ordination (including hand to eye) .....	21	9	
Special skills—			
(a) handicrafts and hobbies *1 .....	15	16	
(b) typing .....	4	3	
(c) writing and pre-writing (including motor and perceptual difficulties) .....	19	16	
Assessments .....	20	7	
Upper limb braces and appliances .....	44	16	
Group therapy and socialization .....	see below *2	11	
Parent instruction and home programs .....	44	54	
Emotional problems .....	8	.....	

\*1—Weaving, basketry, water-colour and oil painting and modelling, simple woodwork, sewing, (machine and hand), metalwork, leatherwork, "jewelcraft", "modelmaking".

\*2—All children are subjected to the socializing influence of the playroom group.

*Speech Therapy*

		(2 mos.)	
Number of treatments .....	1,049	307	1,356
Number of cases benefiting .....	58	18	76
Pre-speech activities .....	6	2	
Respiration .....	9	2	
Articulation .....	24	10	
Language (comprehension)			
(a) oral .....	5	3	
(b) lip reading .....	2	2	
Language (expression)			
(a) verbal .....	15	.....	
(b) non-verbal .....	6	.....	
Voice training .....	.....	4	
Emotional problems (stammerers etc.) .....	6	2	

*Cases on supervision only—*

In Clinic .....	4	1
On home program .....	14	2

*General Improvement*

Considerable .....	21	3
Satisfactory .....	15	7
Little or no progress .....	12	8
Speech and language assessments .....	7	20
Audiometric tests .....	3	1
Parent interviews .....	76	11

*School*

	Edmonton	Calgary	Total
	Schoolroom I	Schoolroom II	
Number of instructions .....	1,619	1,217	4,424
Number of cases benefiting .....	58	26	104
Number of parents instructed .....	30	15	53

*Edmonton—Schoolroom I*

Pre-school testing and training .....	25
(some functioning at 4-5 year level)	
Remedial tutoring .....	18
(grades I-II, but below normal grade level)	
Reading readiness .....	15
(some entered regular school—September 1959)	
Completed Grade I .....	6
(3 with excellent standing)	

Edmonton—Schoolroom II  
(10 mos.)

## Pupils

4  
6  
5  
3  
2Grade  
ungraded  
I  
II  
III  
IV  
V  
VICalgary—Schoolroom  
(10 mos.)  
(teaching provided by the  
Calgary School Board)

## Pupils

8  
5  
2  
6

Pupils received a full day of schooling with exception of therapy periods. Course of Study—Alberta School curriculum with modification according to handicap.

A number of these pupils attending once weekly for therapy receive remedial program in the schoolroom.

	Edmonton	Calgary	Total
Patients on Home Management .....	98	132	230
Admitted to Special Classes in Public Schools .....	6	7	
Admitted to Provincial Training School at Red Deer .....	2	5	
Admitted to School for Mentally Retarded .....	2	4	
Admitted to School for the Deaf .....	.....	1	
Admitted to the Rose Crest Home in Edmonton .....	2	2	
Admitted to Providence Creche .....	.....	2	
Transferred to .....	4	6	
Found gainful employment .....	.....	1	
Surgery .....	23	10	
Deceased .....	2	2	

*Foster Home Program*

Number of boarding cases .....	25	18	43
Total days—domiciliary allowance .....	2,551	1,459	4,010

*Braces*

Ischial bearing long leg braces .....	2		
Long leg braces with knee lock, hip joint, fully adjustable, fibreglas, body support .....	2 pr.		
Long leg braces with knee locks, fully adjustable, fibreglas, body support .....	2 pr.		
Long leg braces with no knee joints .....	1 pr.	1	
Long leg braces, fully adjustable, with special spring return at knee .....	1 pr.		
Long leg braces with knee lock, hip joints and pelvic band .....	1 pr.	1	
Full control braces (3 were modified used ones) .....	.....	1	
Simple unjointed light standing brace .....	.....	1	
Long leg double bar brace .....	.....	2 pr.	
Twister type brace with pelvic band .....	.....	1 pr.	
Twister type brace with pelvic band (unilateral) .....	.....	1	
Below knee irons .....	25 pr.	5 pr.	
Below knee irons (unilateral) .....	19	3	
Short leg double bar braces with drop foot stop (unilateral) .....	.....	1	
Short leg double bar braces with drop foot stop .....	.....	1 pr.	
Perlestein type night splints .....	.....	6 pr.	
Perlestein type night splints (unilateral) .....	.....	9	
Gutter type night splints (unilateral) .....	.....	2	
Gutter type night splints .....	2 pr.	3 pr.	
Night splints .....	7		
Magnusson night splints .....	14		
Frejka splint with straps .....	.....	1	
Ponseti bars .....	2		
Canvas Corset .....	1		
Fibreglas arm brace with cock-up splint .....	2	1	
Plaster fibre shoulder appliance with extension to wrist, cock-up and palm piece .....	.....	1	
Plaster wrist splint .....	.....	2	
Plastic and fibre wrist splints .....	.....	3	
Waist belts with arm restrainers .....	7		
Figure of eight shoulder restraint .....	1		
Fibreglas cock-up splints .....	2		
Fibreglas supination splint .....	3		
Fibreglas thumb splint .....	2		
Sandwich splint .....	1		
Head and jaw support .....	2		
Special feeding apparatus .....	19		
Special weaving adaptations .....	6		
Special items for Therapists .....	22		

**Braces (Continued)**

	Edmonton	Calgary	Total
Adaptions to toys .....	12		
Special walker and walking device .....	2		
Mouthpiece .....	3		
Wordboards (3 wooden, 1 plastic) .....	4		
Special chair and wheelchair adaptions.....	7		
Special adjustable table .....	1		
Straps .....	3 doz.		
Crutch adjustments .....	....	1	
Tripod canes and tips .....	....	1	
Shoe corrections .....	112	58	
Brace adjustments and repairs .....	63	62	

*Staff Education*

Films from Health Education Department viewed and discussed .....	5	5	
Staff members attended Western Regional Workshop on Cerebral Palsy (Edmonton presented a case) .....	6	1	
Staff member made study tour of Cerebral Palsy Centres on West Coast .....	....	1	
Medical Director attended Cerebral Palsy Academy in Los Angeles .....	....	1	

*Instructions*

Social Workers and Psychologists .....	10	9	
Physiotherapists and Physiotherapy students .....	3	12	
Nurses .....	50	338	
Medical Students (3rd year) .....	50	....	
Occupational Therapists .....	4	4	
Speech Therapists .....	2	4	
Students from University of Alberta—Dept. of Education (interested in Special Education) .....	....	8	
Teachers of Homebound (5 teachers) and Special Teachers .....	55	....	
High School Students .....	15	10	
Miscellaneous .....	....	5	
Film "A day in the Life of a Cerebral Palsied Child" .....	....	26	
Parents interviewed by Supervisor .....	....	133	

*Instructions—Film—Tour*

Second year Physiotherapy Students .....	10		
Intermediate Student Nurses from General Hospital .....	92		
Special Teachers from Edmonton Public Schools .....	28		

## MOVIES

*Movie Film progress records*

Total cases filmed to date .....	180		
Number of new cases filmed .....	33		
Number of cases filmed in 1959 .....	75	37	

*Movie films assembled for educational purposes*

Athetoid Case	—	Edmonton	
Appliance Film	—	Edmonton	
Brace Film	—	Edmonton	
New Types Film	—	Edmonton and Calgary	

*Clinic Films shown*

Athetoid Case	Members attending Western Regional Workshop on Cerebral Palsy Staff of the Saskatoon Cerebral Palsy Clinic Occupational Interns from Toronto Staff of the Calgary Cerebral Palsy Clinic Special Teachers from Edmonton Public Schools Girl Guides Psychology Students from University of Alberta (Summer School Session)
Case Films	Cerebral Palsy Steering Committee Staff of the Cerebral Palsy Clinic - Edmonton
Appliance Film	Cerebral Palsy Steering Committee Staff of Saskatoon Cerebral Palsy Clinic
Brace Film	Brace Shop Committee - Saskatoon
Types Film	Medical Students Dental Students

*Firedrill*

	Edmonton	Calgary
Practice sessions .....	2	
Inspected drill (building evacuated in 3 minutes) .....	1	

*Lunchroom*

Lunches served .....	3,172
Total number of volunteers assisting under supervision (periods) .....	985
Total number of Nurses Aides in training assisting under supervision .....	42

*Acknowledgements*

Our sincere thanks are extended to all who have so generously contributed to the operation of the Cerebral Palsy Clinics in Edmonton and Calgary.

Our appreciation is extended to the Provincial Guidance Clinics and the Provincial Training School at Red Deer for their assistance and interest; also to the Edmonton and Calgary Public and Separate School Boards who have provided us with assistance and co-operation in our educational program.

Our grateful appreciation is extended to the Nursing Supervisors and Staffs of the Clinics for their willing co-operation and valuable services throughout the year.



## DIVISION OF TUBERCULOSIS CONTROL

G. R. Davison, M.D., C.M., Director

In summing up the activities for this, the Forty-first Annual Report of the Division of Tuberculosis Control, one is reminded of the principles enunciated many years ago and how applicable they are today - the sanatorium as a treatment and teaching centre, the importance of public health agencies, medical schools and preventive medicine; the family physicians in prevention and early diagnosis, travelling consultants and tuberculosis clinics, follow-up work and education of the public. The cumulated effect of following these fundamentals, along with the more recent advances in treatment and knowledge of tuberculosis have gone far toward controlling this disease. An important duty today lies in keeping people from assuming that tuberculosis is on its way out. The satisfaction over reduced mortality has blinded many to the sustained morbidity. 553 new cases of active disease were discovered in Alberta in 1959 indicating a morbidity rate of one active case for every two thousand of the population. Our death rate, however, of about 3 per 100,000 is the lowest in our history.

There is some justification for optimism. Treatment was never more effective, case finding and diagnostic facilities never so available, and governmental assistance never greater.

### DIAGNOSTIC SERVICES

All clinic services required are provided without charge to the individual. Clinics are held regularly at the Sanatoria in Edmonton and Calgary, and at intervals at several of the larger centres throughout the province. Mobile Chest X-ray Surveys operated throughout the year, with the city surveys being carried out during the winter months. These latter are confined to industry. The Tuberculin Skin Testing Program was continued among the school population of the health units. Grateful acknowledgement is made of the efforts of the medical officers of health and their staffs. All positive reactors were x-rayed, as were the members of their families. X-ray units in the provincial gaols are fruitful sources of cases of tuberculosis and other diseases. X-ray units in the City Halls of Edmonton and Calgary discovered a considerable number of persons with pulmonary disease processes. This service is supplied by the Alberta Tuberculosis Association, which also defrays half the expense of Mobile Chest Units. Altogether 275,324 services were rendered to Alberta residents.

The program of x-raying the chests of all admissions to general hospitals turned up one new case in every 1,356 films. It is lamentable that only a small percentage of admissions have chest films taken.

## PREVENTION

B.C.G. Vaccination in the northern areas of the province, where the incidence of disease is the highest, was further expanded with particular reference to children of Indian blood. It is to be hoped that a declining incidence of disease will be noticeable in a few years. It is expected also that if disease develops among the vaccinated, it will be more or less benign. The expense of this project is borne by the Alberta Tuberculosis Association. Vaccination of nurses and nursing aides in training and others in hazardous occupations is continuing. During 1959—9,966 vaccinations were carried out.

## TREATMENT

The Baker Memorial and Aberhart Memorial Sanatoria provide complete treatment services which include surgery, both for pulmonary and non-pulmonary disease. The use of the anti-microbial drugs has proven to be the greatest forward step in treatment, but unfortunately tubercle bacilli are developing resistance to the drugs. This is particularly so if patients are inadequately treated. This applies especially to persons who leave hospital against medical advice, and to others who following discharge do not take their drugs as prescribed. Sixty-nine per cent of discharged patients in 1959 were supplied with drugs.

There were 1,134 patients given sanatorium care during 1959. This is the same as for 1958. There were 736 admissions in 1959, as against 692 the previous year. The majority of cases come from the Northern areas of the province, and are admitted to the Aberhart, with the result that this institution operates to capacity while the Baker Sanatorium in Calgary has vacant beds. The bed occupancy at the latter institution was considerably higher during the last quarter of the year. The average stay in hospital was 222.1 days (1958 - 254 days). The main reason for empty sanatorium beds is the shortened stay in hospital, rather than a decrease in admissions. Number of admissions 1959 - 736; 1958 - 691; 1957 - 718; 1956 - 693. Then too, because of the efficacy of the anti-microbial drugs and resultant advances in surgery, there is practically no back log of long-term chronics who remained in the sanatorium for several years.

Regardless of the expanding case-finding program, the percentage of patients who have positive sputum on admission has remained about the same for the last three years, but lower than any year previous to 1957. The number of cases with far advanced disease is also tending to decline.

It is the consensus that some slight progress is being made in reducing the menace of tuberculosis to the individual and to the province. In the light of our increasing population it may be that all sanatorium beds will again be required, unless a definite decline in morbidity soon occurs.

## MEDICAL AND NURSING TRAINING

The Aberhart Memorial Sanatorium is associated with the University Medical Faculty. Lectures and clinics are given the third-year medical students by Sanatorium physicians during the University term. Fourth-year medical students are taken on the

Sanatoria staffs at Calgary and Edmonton during the summer vacation. It is felt that the courses are well worthwhile, considering the amount of time allotted in the curriculum. The Sanatoria are accredited for graduate training.

The Nursing Training Schools of the province are affiliated with the Sanatoria for short courses for nurses in their second or third years. These classes are under the supervision of an instructor with the medical and nursing staffs participating in the teaching. The students not only learn something of the nursing of infectious disease but also receive some groundwork in tuberculosis. They also have the opportunity to know the patient as a human being as well as a case.

## PATIENT EDUCATION AND REHABILITATION

Instruction in all school grades is given by well-qualified teaching staff. The curriculum of the Department of Education is followed so that children are able to keep up with their classes and on discharge return to their respective schools with their same age groups.

Very active occupational therapy departments are also operated. This training is looked upon as educational rather than diversional and the patient's aptitude is judged along with scholastic attainment when rehabilitation is being considered.

## ACKNOWLEDGEMENTS

A very heartfelt vote of thanks is extended to the Medical Superintendents and staff of the Sanatoria for a job well done during nineteen hundred and fifty-nine.

The statistical summary which follows sets forth the accomplishments of the Diagnostic Services of the Division and Treatment Services of the Baker Memorial Sanatorium in Calgary and the Aberhart Memorial Sanatorium in Edmonton.

### DIAGNOSTIC CLINICS

#### 1. STATIONARY CLINICS

	Number Sessions	New Cases of Tub. Active		Total Examina- tions
		Pul.	Non-Pul.	
Baker Memorial Sanatorium .....	98	23	2	4,520
Aberhart Memorial Sanatorium .....	101	41	10	4,881
Calgary .....	14	....	....	65
Camrose .....	5	....	....	100
Drumheller .....	12	2	....	256
Lethbridge .....	12	2	....	1,067
Medicine Hat .....	12	5	....	760
Red Deer .....	11	1	....	282
Vegreville .....	4	....	....	57
<b>TOTAL</b> .....	<b>269</b>	<b>74</b>	<b>12</b>	<b>11,988</b>

#### OTHER CLINICS

*Miscellaneous .....	84	1	10,596
<b>Total all Clinics</b> .....	<b>158</b>	<b>13</b>	<b>22,584</b>

In addition to the above 171 newly discovered cases of active tuberculosis there was also discovered 500 cases of inactive tuberculosis.

## DEPARTMENT OF PUBLIC HEALTH

2. Tuberculin Testing and X-ray Surveys (Conducted by Public Health Nurses, Teachers, Business Firms, Hospitals etc.)

	No. Tbn. Tested	No. X-rayed
School Board, Rural .....	66	255
School Board, Edmonton .....	96	153
Nursing Aide Trainees .....	469	1,076
Food Handlers .....	32	379
Health Unit .....	135	24
University Students .....	26	339
Red Cross Blood Transfusion Service .....	10	11
Provincial Laboratory .....	33	79
Alberta School for Deaf .....	244	51
Good Samaritan Hospital, Edmonton .....	105	...
Canada Cement Plant, Exshaw .....	...	28
Travelling Nurse .....	1,188	...
School Survey (see section 2b) .....	42,983	2,146
<b>TOTAL</b> .....	<b>45,387</b>	<b>4,541</b>

Total number given service through this program is 46,275, i.e. number tuberculin tested plus number x-rayed but not tested and minus number known to be x-rayed on Mass Survey.

- 2a. Number out-patient injections (Aberhart Memorial Sanatorium and Baker Memorial Sanatorium)—Streptomycin—1,501 Viomycin—13

\*Films sent in from various points and paid for by the Tuberculosis Division.

## SCHOOL SKIN TESTING SURVEY

	No. Tested		No. Reactors		No. X-rayed		New Cases Tub.	
	School	Contacts	School	Contacts	School	Contacts	Active	Inactive
2b.								
Alberta East					(12)		1	...
Central H.U. ....					105(48)	105(81)	5	3
Athabasca Health Unit...	1,110	140	159	48	33(11)	31(14)	...	2
Barons Eureka H.U. ....	1,406	114	56	46	3	...	...	...
Breton Municipal Nurse	157	...	20	...	*	...	...	...
Calgary .....	2,180	...	214	53	237	2(2)	...	...
Chinook H.U. ....	1,954	117	98	...	105(7)	...	...	...
Drumheller H.U. ....	...	...	...	...	31(31)	18(18)	1	...
Edson H.U. ....	3,774	281	144	74	103(9)	94(45)	3	5
Foothills H.U. ....	4,577	...	33	...	22(9)	12(10)	...	...
Edmonton .....	105	16	7	1	1(1)	...	...	...
Foothills H.U. ....	538	49	12	11	31(25)	15(11)	...	1
Jasper Place H.U. ....	...	...	...	...	1(1)	...	1	...
Leduc Strathcona H.U. ....	5,834	149	48	38	28(3)	13(1)	...	...
Lethbridge H.U. ....	1,161	194	78	73	55(21)	78(25)	...	1
Medicine Hat H.U. ....	...	...	...	...	30(30)	64(64)	...	...
Minburn-Vermilion H.U. ....	2,232	284	135	76	139(30)	95(49)	...	4
Mount-View H.U. ....	4,116	148	89	70	16	19	...	...
North-Eastern								
Alberta H.U. ....	1,397	89	87	27	69(44)	55(52)	3	2
Peace River H.U. ....	1,664	49	38	9	93(71)	89(85)	...	9
Red Deer H.U. ....	2,307	64	38	28	14(4)	11(5)	...	1
Stony Plain-Lac Ste.								
Anne H.U. ....	...	...	...	...	13(13)	9(9)	...	...
Sturgeon H.U. ....	1,650	22	20	13	15(13)	6(6)	...	...
Vegreville H.U. ....	3,460	421	124	120	73(16)	67(10)	...	4
Wetoka H.U. ....	939	151	52	41	70(41)	59(45)	...	...
Youngstown Municipal Nurse	...	...	...	...	3(3)	...	...	...
School of Agriculture, Vermilion	134	...	20	...	14	...	...	...
<b>TOTAL</b> .....	<b>40,695</b>	<b>2,288</b>	<b>1,472</b>	<b>728</b>	<b>1,303(442)</b>	<b>843(533)</b>	<b>13</b>	<b>38</b>

Figures in brackets indicate number of persons x-rayed under this program whose Tuberculin Test results have not yet been reported to the Division.

\*234 of these x-rayed at the City Hall Unit and are included in count of Mass Surveys.

## X-RAY SURVEYS

Surveys at 168 rural points .....	139,703
Industrial City Hall, Calgary .....	1,081
Industrial Mobile Unit, Calgary .....	8,738
School Survey, City Hall, Calgary .....	234
City Hall, Calgary (general public) .....	7,859
Nursing Aide Trainees, City Hall, Calgary .....	466
City Hall, Edmonton (general public) .....	9,934
Industrial Mobile Unit, Edmonton .....	5,685
Calgary Gaol .....	669
Fort Saskatchewan Gaol .....	2,707
Lethbridge Gaol .....	1,218
<b>Total</b> .....	<b>178,294</b>

## SUMMARY MOBILE UNIT SURVEYS

Number X-rayed .....	178,294	
Probable Tuberculosis Active .....	67	(33 previously discovered)
Probable Tuberculosis Inactive .....	877	(620 previously discovered)
Further Examination Requested .....	1,340	
Non-Tuberculous Chest Conditions .....	1,606	
Undiagnosed (including 350 spoiled films) .....	355	
Pleurisy Active .....	1	
Pleurisy Inactive .....	144	(43 previously discovered)
No Disease .....	173,904	

## 4.—SUMMARY CLINICS AND SURVEYS

	Total Number Examinations
Stationary Clinics .....	11,988
Other Clinics .....	10,596
Surveys (excluding Mobile Unit and School Surveys) .....	3,060
School Surveys .....	42,749
Mobile Unit .....	178,294
Department of Indian and Northern Health Services .....	15,416
Hospital Admission Program .....	13,221
<b>TOTAL .....</b>	<b>275,324</b>

## 5.—SOURCES OF DISCOVERY NEW CASES OF TUBERCULOSIS

	1958	%	1959	%
Clinics .....	828	60.9	671	57.9
Referred for admission by family doctor .....	228	16.8	273	23.6
Surveys (refer No. 2) .....	1	.07	3	.3
Referred by Department Veterans Affairs or National Defence .....	19	1.4	17	1.5
Provincial and Hospital Laboratories....	15	1.1	7	.6
Hospital Admission Program .....	87	6.4	61	5.2
Other sources .....	92	6.8	23	1.9
Indian and Northern Health Services (includes 87 Treaty Indians 1959) ..	89	6.6	103	8.9
<b>TOTAL .....</b>	<b>1,359</b>		<b>1,158</b>	

The following table sets forth the sources of discovery giving credit to programs actually referring the cases to the Tuberculosis Clinics and for admission to Sanatorium beds for the establishing of diagnoses, i.e. the various programs originally responsible for the 671 cases being referred to Tuberculosis Clinics are credited with the discovery of the case in the following breakdown.

	1958	%	1959	%
Family Doctor .....	361(218)	26.6	328(227)	28.3
Mass Surveys .....	215( 44)	15.8	171( 38)	14.8
Contacts .....	143( 90)	10.5	116( 85)	10
Indian & Northern Health Services	88( 76)	6.5	109( 98)	9.4
X-San Other Provinces or Countries	91( 8)	6.7	97( 16)	8.4
Hospital Admission .....	102( 7)	7.5	77( 9)	6.6
Department National Health and Welfare .....	80( 3)	5.9	75( 3)	6.5
School Surveys .....	72( 24)	5.3	55( 17)	4.8
City Hall Units .....	30( 12)	2.2	30( 13)	2.6
Other Sources .....	90( 13)	6.6	27( 17)	2.4
Department of Veterans Affairs and National Defence .....	27( 5)	1.9	19( 7)	1.6
Travelling Nurse .....			16( 7)	1.4
Food Handlers .....	19	1.4	13( 3)	1.1
Gaol .....	16( 7)	1.2	13( 6)	1.1
Provincial & Hospital Laboratories	16( 16)	1.2	5( 5)	.4
Surveys (refer No. 2) .....	6	.4	5	.4
Beet Workers .....			2( 2)	.2
Hungarian Refugees .....	3( 2)	.2		
<b>TOTAL .....</b>	<b>1,359(525)</b>		<b>1,158(553)</b>	

Figures in brackets indicate number of active cases.



## 6.—CLASSIFICATION OF NEW CASES OF ACTIVE AND INACTIVE TUBERCULOSIS

Minimal .....	570	
Moderately Advanced .....	192	
Far Advanced .....	66	
Primary .....	120	
Tuberculous pleurisy with effusion and evidence of previous pleurisy....	90	
Non-pulmonary tuberculosis .....	115	
Miliary .....	5	
<b>TOTAL .....</b>	<b>1,158</b>	
Number newly discovered cases active tuberculosis .....	553	
Number newly discovered cases inactive tuberculosis .....	605	
Number of cases reactivated .....	48	
Number non-residents diagnosed tuberculosis (includes 48 immigrants) .....	62	
Number known contacts of newly discovered cases .....	2,785	
Number known contacts checked .....	1,960	70.3%

## OLD TUBERCULIN SENT 1959

	BMS	AMS
Dilution No. 2 .....	64	96
Dilution No. 3 .....	509	1,048
Dilution No. 4 .....	24	.....
	<b>597</b>	<b>1,144</b>

In addition to the above, Patch Tests were sent to Health Units, Municipal Nurses and Family Doctors upon request. The Tuberculosis Division recommends however that the Mantoux Test be used as often as possible in preference to the Patch Test.

## B.C.G. VACCINATIONS 1959

1. Nurses (a) Graduates .....	2
(b) Students .....	315
(c) Other Nursing Personnel .....	355
2. Other Hospital Personnel .....	35
3. Medical Students .....	3
4. Indians and Eskimos, adults and children (Indian and Northern Health Services) .....	1,442
5. All Other Persons .....	
(a) Newborn contacts .....	13
(b) Adults and children, contacts .....	34
(c) Newborn, not contacts .....	
(d) Adults and children, not contacts .....	7,767
<b>TOTAL .....</b>	<b>9,966</b>

## INSTITUTIONAL REPORT

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium
Number of patients under treatment January 1, 1959..	143	252
Number admitted during 1959 .....	288	451
Number transferred in during 1959 .....	1	4
Number treated during 1959 .....	432	707
Number discharged or died during 1959 .....	282	454
Number transferred out during 1959 .....	4	1
Number discharged, died or transferred during 1959....	286	455
Number of patients under treatment December 31, 1959	146	252
Number of patients under treatment January 1, 1959		395
Number of admissions during 1959 .....		739
Number of patients treated in Alberta during 1959 ....	1134	

## DIAGNOSIS OF PATIENT ADMISSIONS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	
Non-tuberculosis .....	...	23	
For diagnosis .....	63	29	
Pleural effusion .....	10	15	
Tuberculosis inactive .....	22	2	
Primary tuberculosis .....	31	59	
Non-Pulmonary Tuberculosis:			
Genito-urinary .....	9	18	
Pelvic .....	2	16	
Bone .....	6	18	
Adenitis .....	6	23	
Meningitis .....	...	9	
Abscess .....	...	4	
Erythema Nodosum .....	1	...	
Pericarditis .....	...	1	
Empyema .....	...	1	
Synovitis .....	...	1	
Pulmonary Tuberculosis Active:			
Minimal .....	23	64	
Moderately Advanced .....	59	111	
Far Advanced .....	53	55	
Miliary .....	3	1	
Silico-tuberculosis .....	...	1	
TOTAL .....	288	451	
Number with positive sputum on admission .....	72	99	
Number with negative sputum on admission .....	216	352	
Number negative on admission, positive later .....	1	4	
Number of readmissions during 1959 .....	61	108	
Number both admitted and readmitted during 1959 .....	6	13	
Number left against advice during 1959 .....	8	47	
Number of patient days .....	54,200	83,958	
Number of patient days in other provinces under reciprocal agreement .....			1,835
Total number of patient days including those in other provinces under reciprocal agreement .....			139,993
Number of patients in other provinces January 1, 1959 .....			6
Number of admissions in other provinces under reciprocal agreement .....			6
Number of institutional patient days provided for non-residents in Alberta under reciprocal agreement .....			3,346
Number of patients in Alberta Sanatoria, non-residents under reciprocal agreement, January 1, 1959 .....			11
Number of admissions, non-residents, under reciprocal agreement .....			9

## OPERATING ROOM REPORT

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Aspiration of chest .....	135	57	192
Bronchogram .....	34	36	70
Bronchoscopy .....	43	43	86
Casts .....	5	26	31
Implantation D.O.C.A. ....	5	15	20
Lobectomy .....	25	15	40
Lobectomy and removal segment from lower lobe .....	...	1	1
Lobectomy and decortication .....	...	1	1
Lobectomy, wedge resection, decortication .....	...	1	1
Nephrectomy .....	1	1	2
Pneumonectomy .....	1	7	8
Segmental resection .....	2	7	9
Thoracoplasty .....	31	11	42
Thoracotomy .....	1	...	1
Orthopaedic operations .....	10	7	17
Miscellaneous procedures and examinations .....	480	51	531
TOTAL .....	773	279	1052

## DEPARTMENT OF PUBLIC HEALTH

## SUMMARY PNEUMOTHORAX CASES

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Outside Points	Total
Under treatment January 1, 1959 .....	2	....	....	2
Number of new cases during 1959 .....	....	....	....	....
Number cases under treatment on admission .....	....	....	....	....
	2	....	....	2
Number cases discontinued .....	1	....	....	1
Number of cases transferred out of Alberta .....	....	....	....	....
Number transferred to other sections of Division .....	....	....	....	....
	1	....	....	1
Number under treatment December 31, 1959 .....	1	....	....	1
Unsuccessfully attempted .....	....	....	....	....
Refills:				
Resident .....	6	....	....	6
Out-patient .....	12	....	....	12
	18	....	....	18

## SUMMARY PNEUMOPERITONEUM CASES

Under treatment January 1, 1959 .....	3	9	1	13
Number of new cases during 1959 .....	....	2	....	2
Number of cases under treatment on admission .....	....	....	1	1
	3	11	2	16
Number discontinued .....	3	5	....	8
Number transferred out of province .....	....	....	....	....
Number transferred to other sections of Division .....	....	1	....	1
	3	6	....	9
Number under treatment December 31, 1959 .....	....	5	2	7
Number of refills:				
Resident .....	31	112	....	143
Out-patient .....	1	147	54	202
	32	259	54	345

Patients received pneumoperitoneum refills at the following outside points:  
Elk Point  
Lac La Biche

## NUMBER DISCHARGED ON DRUGS 1959

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Isoniazid and Para-amino Salicylic Acid .....	127	237	364
Isoniazid and Streptomycin .....	....	22	22
Streptomycin and Para-amino Salicylic Acid .....	3	2	5
Isoniazid, Streptomycin and Para-amino Salicylic Acid .....	7	10	17
Isoniazid and Seromycin B 6 .....	....	1	1
Streptomycin and Seromycin .....	....	2	2
Seromycin and Viomycin .....	....	1	1
Isoniazid and Largactyl .....	....	1	1
Isoniazid .....	1	12	13
Isoniazid, Streptomycin and Aristocort .....	....	1	1
TOTAL .....	138	289	427

## LABORATORY REPORT

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
<b>SPUTUM EXAMINATIONS:</b>			
Positive .....	503	444	947
Negative .....	2,904	2,534	5,438
TOTAL .....	3,407	2,978	6,385
<b>URINE EXAMINATIONS:</b> .....	6,716	5,908	12,624
<b>BLOOD EXAMINATIONS:</b>			
Blood Counts .....	3,844	4,546	8,390
Sedimentation Rates .....	2,412	3,075	5,487
Blood Sugars .....	156	499	655
TOTAL .....	6,412	8,120	14,532
<b>MISCELLANEOUS:</b>			
Pleural Fluid .....	15	2	17
Spinal Fluid .....	49	135	184
Gastric Analysis .....	20	16	36
Culture .....	2,182	1,582	3,764
Guinea Pig Inoculation .....	510	1,202	1,712
Other .....	1,963	982	2,943
TOTAL .....	4,739	3,919	8,658
<b>WASSERMAN REPORT:</b>			
Positive .....	7	13	20
Negative .....	249	353	602
TOTAL .....	256	366	622
Basal Metabolism Rate .....	.....	19	19
Cardiograph .....	.....	117	117

## DENTAL REPORT

Number of patients (individuals) .....	289	683	972
Number of treatments .....	40	520	560
Number of prophylactic treatments .....	110	15	125
Number of fillings .....	26	246	272
Number of extractions .....	109	258	367
Number of new dentures and repairs .....	35	59	94

## X-RAY DEPARTMENT REPORT

	Baker Memorial Sanatorium		Aberhart Memorial Sanatorium		Total	Total	Grand Total
	In Pts.	Out Pts.	In Pts.	Out Pts.	In Pts.	Out Pts.	
<b>RADIOGRAPHS MADE:</b>							
Chest—Full Sized .....	1,304	970	1,980	2,313	3,284	3,283	6,567
Miniature .....	146	4,283	61	4,300	207	8,583	8,790
Ribs .....	2	.....	2	2	4	2	6
Pelvis .....	14	16	28	16	42	32	74
Extremities .....	52	105	64	20	116	125	241
Spines—Cervical .....	2	6	4	3	6	9	15
Dorsal .....	30	52	32	22	62	74	136
Lumbar .....	50	58	27	13	77	71	148
Skull .....	7	2	2	.....	9	2	11
Sinus .....	4	1	7	.....	11	1	12
F.P. Abdomen .....	3	3	5	2	8	5	13
G.B. Series .....	.....	.....	3	.....	3	.....	3
G.I. Series .....	8	.....	3	.....	11	.....	11
Barium Enema .....	1	.....	2	.....	3	.....	3
Intravenous Pyelogram .....	27	.....	50	15	77	15	92
Retrograde Pyelogram .....	10	.....	11	2	21	2	23
Sinogram .....	2	.....	23	3	25	3	28
Bronchogram .....	33	.....	41	5	74	5	79
Ordographs .....	79	1	85	10	164	11	175
Dental .....	4	.....	73	.....	77	.....	77
K.U.B. .....	3	1	.....	.....	3	1	4
Cystogram .....	1	.....	1	.....	2	.....	2
Clavicle .....	1	1	.....	.....	1	1	2
Sacro-iliac .....	1	.....	.....	.....	1	.....	1
Jaw .....	.....	1	.....	.....	.....	1	1
Shoulder .....	.....	5	.....	.....	.....	5	5
Nasal Bones .....	.....	.....	.....	1	.....	1	1
TOTAL .....	1,784	5,505	2,504	6,727	4,288	12,232	16,520
<b>Fluoroscopic</b>							
Examinations .....	220	15	109	151	329	166	495
Films sent in for interpretation .....	.....	10,575	.....	17,726	.....	.....	28,301
Basal Metabolism Rate .....	.....	6	.....	.....	.....	.....	6
Cardiograph .....	.....	19	.....	.....	.....	.....	19

## DEPARTMENT OF PUBLIC HEALTH

CLASSIFICATION OF DISCHARGED PATIENTS  
RESIDENCE

	On ad- mission	31 days or less	Over 31 days	On discharge			
				In.	Al.	Au.	D.
1. For diagnosis .....	119	83	36	3	4	1	8
2. Primary tuberculosis .....	97	7	90	29	68	....	....
3. Reinfection type pulmonary tuberculosis clinical:							
Minimal .....	85	18	67	39	45	....	1
Moderately advanced .....	*76	11	65	27	43	2	2
Far advanced .....	*29	10	19	15	6	....	6
4. Reinfection type pulmonary tuberculosis positive:							
Minimal .....	25	....	25	4	20	1	....
Moderately advanced .....	81	2	79	21	56	2	2
Far advanced .....	89	4	85	19	45	6	19
Miliary .....	5	1	4	1	3	....	1
5. Tuberculous pleurisy .....	18	1	17	6	12	....	....
6. Non-pulmonary tuberculosis:							
Meningitis .....	13	4	9	5	6	....	2
Genito-urinary .....	28	6	22	6	21	1	....
Adenitis .....	26	6	20	2	21	3	....
Pelvic .....	19	3	16	2	17	....	....
Bone .....	18	3	15	8	8	2	....
Abscess .....	6	1	5	1	5	....	....
Tænosynovitis .....	1	....	1	....	1	....	....
Addison's disease .....	1	1	....	....	1	....	....
Total active tuberculosis .....	617	78	539	185	378	17	33
Total treated .....	....	....	575	151	358	8	26
Total untreated .....	....	161	....	37	22	8	15
Grand total .....	736	....	....	188	380	16	41

## EXPLANATION OF ABBREVIATIONS AND TERMS USED

The standard classification is that of the National Tuberculosis Association. Minimal, Moderately Advanced and Far Advanced refer to anatomical extent of disease.

In. ....	Inactive
Al. ....	Active improved
Au. ....	Active unimproved
D. ....	Died

N.B.: Only those in residence over 31 days are classed as "treated".

\*2 cases diagnosed moderately advanced tuberculosis on admission and 2 cases diagnosed far advanced tuberculosis on admission were found to have non-tuberculous disease. This accounts for the apparent discrepancy in the above table.

## CLASSIFICATION ON ADMISSION OF 736 DISCHARGED PATIENTS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
For diagnosis .....	69	50	119
Primary tuberculosis .....	34	63	97
Pulmonary tuberculosis .....	148	242	390
Tuberculous pleurisy .....	6	12	18
Non-pulmonary tuberculosis .....	25	87	112
TOTAL .....	282	454	736

CLASSIFICATION ON DISCHARGE OF TREATED CASES OF ACTIVE TUBERCULOSIS  
AND TUBERCULOUS PLEURISY

	On admission Number	On discharge		Died
		Improved	Unimproved	
Minimal .....	94	93	....	1
Moderately advanced .....	143	*139	....	2
Far advanced .....	102	* 77	6	17
Primary .....	91	91	....	....
Miliary .....	4	4	....	....
Non-pulmonary tuberculosis .....	88	85	1	2
Tuberculous pleurisy .....	17	17	....	....
TOTAL .....	539	506	7	22

\*2 cases diagnosed moderately advanced tuberculosis on admission and 2 cases diagnosed far advanced tuberculosis on admission were found to have non-tuberculous disease. This accounts for the apparent discrepancy in the above table.



## RESIDENCE OF DISCHARGED PATIENTS

## SUMMARY

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Cities .....	147	150	297
Towns .....	29	95	124
Villages .....	9	1	10
Enlarged Municipal Districts .....	51	84	135
Local Improvement Districts .....	26	113	139
Special Areas Board .....	3	1	4
Non Resident .....	7	7	14
Counties .....	10	3	13
<b>TOTAL</b> .....	<b>282</b>	<b>454</b>	<b>736</b>

## SEX OF DISCHARGED PATIENTS:

Male .....	168	239	407
Female .....	114	215	329
<b>TOTAL</b> .....	<b>282</b>	<b>454</b>	<b>736</b>

## AGE ON ADMISSION

From 1 to 9 years .....	42	70	112
From 10 to 14 years .....	9	23	32
From 15 to 19 years .....	9	45	54
From 20 to 29 years .....	38	86	124
From 30 to 39 years .....	51	71	122
From 40 to 49 years .....	41	54	95
From 50 to 59 years .....	40	53	93
From 60 to 69 years .....	28	28	56
70 and over .....	24	24	48
<b>TOTAL</b> .....	<b>282</b>	<b>454</b>	<b>736</b>

## SOCIAL STATUS OF DISCHARGED PATIENTS

Single .....	108	210	318
Married .....	147	211	358
Divorced .....	2	1	3
Separated .....	4	10	14
Widowed .....	21	22	43
<b>TOTAL</b> .....	<b>282</b>	<b>454</b>	<b>736</b>

## RESIDENCE IN ALBERTA

Born in Alberta .....	100	277	377
1 year or less .....	19	12	31
1 - 5 years .....	35	27	62
6 - 9 years .....	19	9	28
10 to 14 years .....	18	19	37
15 - 19 years .....	8	7	15
20 to 29 years .....	13	15	28
30 or more years .....	70	88	158
<b>TOTAL</b> .....	<b>282</b>	<b>454</b>	<b>736</b>

## RACIAL ORIGIN

Metis .....	23	152	175
Negro .....	1	—	1
Chinese .....	7	4	11
Indian .....	1	4	5
Japanese .....	4	1	5
<b>TOTAL</b> .....	<b>36</b>	<b>161</b>	<b>197</b>

## LENGTH OF STAY IN SANATORIUM OF DISCHARGED PATIENTS

## DEATHS:

Number in Sanatorium under 31 days .....	10	5	15
Number of patient days .....	106	70	176
Average patient days .....	10.6	14	11.7
Number in Sanatorium 31 days or more .....	15	11	26
Number of patient days .....	16,345	8,150	24,495
Average patient days .....	1,089.7	740.9	942.1

## DISCHARGES:

Number in Sanatorium under 31 days .....	92	54	146
Number of patient days .....	1,135	980	2,115
Average number patient days .....	12.3	18.1	14.5
Number in Sanatorium 31 or more days .....	165	384	549
Number of patient days .....	49,897	86,764	136,661
Average number of patient days .....	302.4	225.9	248.9
Total number deaths and discharges .....	282	454	736
Total number patient days .....	67,483	95,964	163,447
Average number patient days .....	239.2	211.4	222.1

## DIVISION OF MENTAL HEALTH

R. R. MACLEAN, M.D., *Cert. in Neurol. and Psychiatry*,  
F.A.P.A., *Cert. M.H.A. (A.P.A.)*, *Director*

### ADMINISTRATION

The Office of the Director coordinated the preventive and treatment services of the entire Division of Mental Health, and encouraged improvement in the various programs and enterprises. Progress was made through further increases in the numbers of personnel in the Institutions and Guidance Clinics.

The advantages of advanced training were stressed and many staff members took advantage of Bursaries offered by the Department of Public Health.

The facilities for the treatment and care of the mentally ill and the mentally deficient were further improved. The value and need for active rehabilitation services were emphasized.

The respective individual reports of the various branches of the Mental Health Services reflect the aims and objects of the work of the Division as a whole.

### PREVENTIVE SERVICES

#### *Provincial Guidance Clinics*

The total work load of the Clinics increased by over 25% compared with the previous year. The Clinics reported continued success in their treatment programs.

Teams from the various full-time Clinic centres visited some 35 points outside their immediate areas.

The bulk of the cases seen and treated were in the categories of emotionally disturbed and otherwise maladjusted children: about 38% of the new cases seen were mentally retarded. From the Clinic reports it would again appear that some 30 severely emotionally disturbed children were being treated at any particular time.

Much work was done in the field of public education by the staff members of the various Clinics. Individuals or teams participated in panel discussions, work shops, institutes, and radio and television appearances.

The Clinics continued to assist in follow-up work with the patients discharged from the Mental Hospitals. Services were also provided to the Cerebral Palsy and other Health Department Clinics.

Separate reports from the various Clinics follow.

## PROVINCIAL GUIDANCE CLINICS

### PROVINCIAL GUIDANCE CLINIC, EDMONTON

A. R. SCHRAG, M.D., *Spec. Psych., Clinic Psychiatrist*

During 1959 there were numerous staff changes. Dr. A. R. Schrag was granted an Educational Leave-of-Absence from January to March, inclusive, for studies in residential treatment of emotionally disturbed children at Lafayette Clinic, Detroit, Michigan. Miss J. L. Dixon, Senior Psychologist, was granted an Educational Leave-of-Absence in September to pursue studies leading to her Doctorate Degree in Psychology at Wayne State University, Detroit, Michigan. The two Assistant Psychiatrists, who had been working part-time, left the service in July and September. It was not possible to replace them. Two staff members who had been away on a Federal Health Grant returned to the service. The staff positions were increased to six Social Workers, six Psychologists, two Assistant Psychiatrists, and four Secretarial Assistants. However, because the space was not available for expansion, one Social Worker and one Secretarial Assistant were not employed.

The in-service training program was stepped up because of the number of untrained persons it was necessary to take on the staff to round out the complement.

The demand for Clinic services, both in the City of Edmonton and in rural areas, continued.

New cases examined numbered 1,137, which was 40 cases less than last year. 422 re-registered cases were seen which was an increase of 31 cases over the preceding year. The total work load was 13,745, an increase of 210 hours, representing increased time given to staff training and more intensive work being done with a large number of treatment cases.

*Age and Sex Distribution*—The ratio of male to female cases was 1.73 to 1.00. Of all the new cases 95.9 percent were under the age of 20 years, 41.4 percent being in the five to nine year age group, 31.05 percent in the ten to fourteen year age group.

*Classification of Types of New Cases*—There was an increase in the number of persons diagnosed as Intellectual Inadequacy, 22.16 percent of the total new cases being in that category. The various classifications remain essentially the same as in past years.

*Educational Activity*—Medical Students and Students in the Bachelor of Science Nursing Course, as well as Student Nurses from the local hospitals, continued to visit the Clinic. Talks and addresses to public organizations numbered 39, which was an increase over the past year.

*City of Edmonton*—The total number of new cases examined amounted to 708 which was an increase of 33. Re-registered cases were 325, which was an increase of 58. The total work load was 12,074, an increase of 2,409.

*Edmonton Rural*—69 new cases and 12 re-registered cases were examined, for a total work load of 176 periods, a decrease of 14 periods.

*Athabasca-Lac La Biche*—34 new cases and 10 re-registered cases were seen, for a work load of 151 periods. An extra Clinic was given to Athabasca because of the back-log of cases.

*Barrhead-Westlock-Thorhild*—25 new cases and six re-registered cases were seen for a work load of 93 periods. One trip to Westlock was cancelled in February.

*Camrose-Killam* — Two trips were made in 1959. New cases numbered 28 and re-registered cases three, for a total work load of 121 periods.

*Edson* — 16 new cases and four re-registered cases were seen for a total work load of 54 periods. There was pressure from this area for increased services.

*Lamont-Smoky Lake*—No clinics were held in Smoky Lake, the occasional case from this area being examined in the City of Edmonton. In Lamont 16 new cases and two re-registered cases were seen for a total work load of 57 periods.

*Peace River-Grande Prairie*—One trip was made into the Peace River-Grande Prairie area in the spring. The fall trip was cancelled. 79 new cases and 21 re-registered cases were seen for a total work load of 338 periods.

*Bonnyville-St. Paul-Two Hills*—Two trips were made into this area and the Clinic at Two Hills was omitted in the fall and this time given to the St. Paul area for the examination of cases for a proposed Opportunity Class at Elk Point. 58 new cases and 10 re-registered cases were examined for a total work load of 215 periods.

*Vegreville-Vermilion-Wainwright* — 78 new cases and 26 re-registered cases were seen for a total work load of 384 periods. One trip was cancelled in January.

*Wetaskiwin*—22 new cases and three re-registered cases were examined for a total work load of 82 periods. One trip was cancelled in January.

#### PROVINCIAL GUIDANCE CLINIC, PONOKA

F. J. EDWARDS, M.D.C.M., R.C.P.S. (C), *Clinic Psychiatrist*

During 1959, Guidance Clinics were again conducted by members of the staff of the Provincial Mental Hospital, Ponoka, on a part-time basis, the work being carried out by various Psychiatrists, Social Workers and Psychologists.

A total of 27 individual cases was seen at the Provincial Mental Hospital, while one Clinic was held in the Town of Ponoka, at which seven cases were seen. Sixteen of these cases were under the age of 18.

*Stettler and Castor*—Two Clinics were held in Stettler and one in Castor. A total of 28 cases was seen at these Clinics, 27 of whom were under the age of 18.

The Clinics conducted from this centre usually consisted of one day spent in each town, during which time an average of six to eight persons were examined. As in previous years, cases were referred by the School Principals or Superintendents, or by the Public Health Nurses.

Those examined were persons who presented some psychiatric, emotional, or educational problem which was causing difficulty in adjustment in the home, school or community. In each case efforts were made to evaluate the situation, and to come to some conclusion as to its cause. Advice was offered as to ways and means of dealing with the presenting situation, which often involved an attempt at environmental manipulation. Where local practitioners were involved advice was given as required. In cases where epilepsy was considered in the differential diagnosis, arrangements were made for electroencephalography at the Provincial Mental Hospital.

Facilities for the work varied from place to place, but generally use was made of accommodation temporarily vacated by School or Health Unit personnel.

#### PROVINCIAL GUIDANCE CLINIC, RED DEER

L. J. LE VANN, L.R.C.P., Edin., L.R.C.S., Edin.,  
L.R.F.P.S., Glas., *Clinic Psychiatrist*

There was a relative increase in clinic hours in 1959. A total of 535 clinic hours were utilized.

The Rocky Mountain House Clinic was visited on nine occasions and 29 cases were seen there.

The addition of a psychologist and trained social worker to the Clinic team proved to be extremely valuable and once again school referrals began to increase towards the latter portion of the year.

Referrals came from school authorities and private physicians. To maintain the good relationship, in every instance, it was requested that patients be referred by their own doctor or school or religious authority. This proved very successful inasmuch as it was possible to enlist the help of the referring agency wherever required.

The Clinic hours were utilized in the following way:

Psychiatrist	320 hours
Psychologist	74 hours
Social Worker	73 hours
Medical Officer	68 hours

In addition to these interviews, 56 psychometric examinations were done.

*Work at the Municipal Hospital*—Electric shock therapy was carried out on 25 occasions.

*Extra Clinic Services*—This year, as in previous years, the Guidance Clinic Staff gave 14 talks during the year.



## PROVINCIAL GUIDANCE CLINIC, CALGARY

N. C. HORNE, M.B., M.R.C.S., D.P.M., *Clinic Psychiatrist*

In 1959 this Clinic was under the direction of a full-time Psychiatrist for the first time in three years. During the year the staff establishment was increased to two Psychiatrists, four Psychologists, four Psychiatric Social Workers and three Clerical staff members. Unfortunately, because of the scarcity of qualified applicants it was not possible to fill all the vacancies.

The resignation of the Senior Psychologist, which became effective in August, was greatly regretted, this valuable staff member having been in charge of the Clinic during the time when no full-time Psychiatrist was available.

The Clinic quarters were expanded by the addition of two offices and a second play therapy room, giving a total of eight offices and two play rooms.

*Drumheller*—One Clinic was held in Drumheller, none other being requested. Five new cases were seen at this centre for a total work-load of 22.

*Rural Area Surrounding Calgary*—Many clients were seen from the rural areas, some travelling nearly 200 miles to attend the Clinic in Calgary.

*Calgary*—A total of 415 new cases was examined—(246 males and 169 females), which represented an increase of 134 over the previous year. Re-registered cases amounted to 287, an increase of 64 over the number seen in 1958.

The work-load almost doubled in comparison to the previous year, with a total of 7,258 periods. (In 1958 the work-load amounted to 3,844 periods.) The work-load breaks down as follows:

Psychiatrist .....	2,392	
Psychologists ....	2,111	—(Plus periods devoted to the
Social Workers....	2,755	Lethbridge Clinic.)

Of the new cases examined, 81.4 percent were under the age of 19 years, with 37.1 percent of these being between the ages of five to nine years.

Schools referred 16 percent of the cases seen, medical practitioners 14 percent, self or family 26 percent, and Child Welfare Agencies (Provincial and Municipal) accounted for 15 percent.

A total of 131 mental defectives was examined.

Clinic therapy was recommended in 171 cases, of which 48 were treated specially with ataractics under medical supervision.

## PROVINCIAL GUIDANCE CLINIC, LETHBRIDGE

J. BOWER, M.D., *Clinic Psychiatrist*

This Clinic functioned with the services of a full-time Psychiatrist, Social Worker, and Receptionist, with extra assistance being provided during part of the year through the services of a graduate student in Psychology and a senior student in Sociology. Periodic assistance was also obtained through the courtesy of the

Provincial Guidance Clinic at Calgary, which loaned a Psychologist to the Lethbridge Clinic on three occasions, for a work-load of 55 periods.

A total of 296 new cases was examined, this being an increase of 25 over the previous year. Re-registered cases totalled 138, an increase of 15. Interviews given by the Psychiatrist, Psychologists and Social Workers numbered 2,537, which represented an increase of 858 over the figures for 1958.

The following table shows the area distribution of the cases seen by the Clinic:

Area	New Cases	Re-Registration
Lethbridge .....	269	114
Medicine Hat .....	19	23
Crow's Nest Pass .....	7	0
Fort Macleod .....	1	1
TOTALS .....	296	138

*Provincial Gaol*—A total of 40 new cases was seen at the Provincial Gaol, and a large number of previously registered cases was seen on one or more occasions for re-evaluation or psychotherapy.

*Work with Other Institutions*—A consultant service was provided at the Galt Rehabilitation Centre and at the Provincial Gaol. The Clinic spent one day per month at the School for Retarded Children, assisting the staff in the handling of problems. Regular attendance was provided at the Provincial Auxiliary Mental Hospital, Raymond, and the Provincial Auxiliary Mental Hospital, Claresholm. Clinical demonstrations and lectures were conducted for student nurses.

*Educational Activities*—Many speaking engagements on Mental Health topics were carried out by Clinic staff, throughout the southern part of the Province. Talks were also given on radio and television. Good relations were maintained with the medical profession and clergy, many of whom, as well as other professional groups, availed themselves of the privilege of using the Clinic library.

TABLE 1  
SUMMARY OF NEW AND RE-REGISTERED CASES EXAMINED, TREATMENT PERIODS, INTERVIEWS,  
PSYCHOLOGICAL EXAMINATIONS, AND TOTAL WORK LOAD OF CLINICS

CLINIC DISTRICTS	NEW CASES			RE-REGISTERED CASES			DISTRIBUTION OF WORK				TOTAL WORK LOAD
	M	F	T	M	F	T	Pat.	Col.	Gen.	P.E.	
Edmonton and District	727	410	1137	261	161	422	3659	4356	4210	1520	13,745
Calgary and District	246	169	415	191	96	287	1802	3075	1818	563	7258
Lethbridge and District	181	115	296	82	56	138	875	1350	129	183	2537
Ponoka and Red Deer District	79	70	149	31	21	52	332	267	15	90	704
TOTALS	1,233	764	1,997	565	334	899	6668	9048	6172	2356	24,244

Notes: Total new cases examined since the Clinics opened in 1929 is now 24,800.

Edmonton and District includes all the area served from Wetaskiwin north. It includes Clinics held in the Peace River-Grande Prairie area and such points as Athabasca, Barrhead, Bonnyville, Horden, Lac La Biche, St. Paul, Two Hills, Vegreville, Vermillion, Wainwright, Westlock and Wetaskiwin.

Calgary and District includes the area served south of Didsbury, excluding the Lethbridge area. It includes Clinics held at such points as Didsbury, Drumheller, Cochrane, High River and Strathmore.

Lethbridge and District includes the area in the far south of the Province, with Clinics held at such points as Medicine Hat, Fort Macleod, Claresholm, Cardston and the Crow's Nest Pass.

Ponoka and Red Deer District includes the area from Didsbury on the south to Wetaskiwin on the north. It includes Clinics at such points as Castor, Ponoka, Red Deer, Rimbey, Rocky Mountain House and Stettler.

Re-registered cases are those that have been examined previously at a Clinic, and are seen again for further consultation and/or treatment.

Pat.—Patient contacts including treatment periods.

Col.—Collateral, or contacts with a patient's parents, or relatives, or with others closely interested.

Gen.—General contacts regarding Clinic activities and work, including those with other Agencies and Community Services. It includes as well talks and addresses, and teaching periods by staff members.

P.E.—Psychological examinations and tests.

Total Work Load—This is the sum of the periods of work noted under each of the four headings Patient, Collateral, General and Psychological examinations.

TABLE 2  
AGE AND SEX CLASSIFICATION OF NEW CLINIC CASES

AGE GROUP	EDMONTON AND DISTRICT			CALGARY AND DISTRICT			LETHBRIDGE AND DISTRICT			PONOKA AND RED DEER DISTRICT			TOTALS			PERCENTAGES		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0-4	86	35	121	39	22	61	8	8	16	7	5	12	140	70	210	11.4	9.2	10.6
5-9	317	154	471	95	59	154	19	19	69	20	18	40	482	252	794	39.1	33.0	36.8
10-14	233	120	353	52	30	82	17	17	46	26	20	44	340	185	525	27.5	24.2	26.2
15-19	71	75	146	21	21	42	10	10	45	7	4	11	127	117	244	10.3	15.3	12.2
20-24	4	10	14	12	10	22	13	10	23	2	3	5	31	33	64	2.5	4.3	3.2
25-29	4	1	5	7	8	15	11	8	19	1	3	4	23	20	43	1.9	2.6	2.1
30-34	2	3	5	10	3	13	15	9	24	3	3	6	30	18	48	2.4	2.4	2.4
35-39	2	4	6	7	7	8	4	6	10	2	4	6	9	21	30	0.7	0.7	1.5
40-44	0	3	3	3	3	6	2	3	5	3	3	5	7	12	19	0.6	1.6	1.0
45-49	3	3	6	3	3	5	4	5	9	3	2	5	12	13	25	1.0	1.7	1.3
50 and over	5	2	7	4	3	7	13	10	23	4	4	8	26	17	43	2.1	2.2	2.1
Unknown	0	0	0	0	0	0	4	3	7	2	3	5	6	6	12	0.5	0.8	0.6
TOTALS	727	410	1137	246	169	415	181	115	296	79	70	149	1233	764	1997	100.0	100.0	100.0

TABLE 3A  
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES—PRE-SCHOOL GROUP (0 to 5 years 11 months)

Nature of Case	Edmonton and District			Calgary and District			Lethbridge and District			Ponoka and Red Deer District			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Educational Problem with Adequate Intellect .....	18	9	27	4	3	7	1	1	1	8	3	11	22	13	35
Intellectual Inadequacy .....	42	24	66	18	14	32	5	5	12	8	3	11	75	46	121
Emotional Disorder .....	27	16	43	16	4	20	2	2	2	1	2	2	43	24	67
Thinking Disorder .....	7	7	14	3	2	5	...	...	...	1	...	1	7	8	7
Speech Disorder .....	14	6	20	3	2	5	...	...	...	1	...	1	18	8	26
Faulty Feeding Habits .....	1	1	1	1	...	...	...	...	...	...	...	...	1	1	1
Sleep Disturbances .....	1	1	1	1	2	2	...	...	...	...	...	...	1	2	2
Anti-Social Trends .....	1	1	1	1	...	...	...	...	1	...	...	...	7	1	7
Sexual Difficulties .....	5	1	5	1	...	1	...	1	...	...	...	...	...	1	1
Attack Disorders .....	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Psychoneuroses .....	...	1	1	4	4	8	...	...	...	1	...	1	6	4	10
Non-Psychotic .....	...	3	9	7	5	12	4	1	5	1	1	2	18	10	28
Normal Child .....	6	...	...	2	1	3	5	2	7	...	...	...	7	3	10
Undiagnosed .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS .....	121	60	181	55	35	90	17	11	28	11	6	17	204	112	316



TABLE 3B  
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES—SCHOOL AGE GROUP (6 years to 18 years 11 months)

Nature of Case	Edmonton and District			Calgary and District			Lethbridge and District			Ponoka and Red Deer District			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Educational Problem with Adequate Intellect .....	195	71	266	24	13	37	16	16	17	14	7	21	249	92	341
Intellectual Inadequacy .....	100	63	163	45	31	76	16	16	32	14	8	22	175	118	293
Emotional Disorder .....	155	96	251	28	16	44	13	13	18	9	8	17	205	125	330
Thinking Disorder .....	10	5	15	4	1	5	2	2	2	3	2	5	14	9	23
Speech Disorder .....	27	5	32	2	1	3	2	2	2	3	2	5	34	8	42
Faulty Feeding Habits .....	2	2	2	1	1	1	1	1	1	1	1	1	4	1	5
Sleep Disturbances .....	15	10	25	22	10	32	4	4	4	4	2	6	45	22	67
Anti-Social Trends .....	42	38	80	3	3	3	2	2	3	1	1	2	45	43	88
Sexual Difficulties .....	13	15	28	3	1	4	1	1	1	1	1	2	18	17	35
Attack Disorders .....	2	6	8	6	7	13	2	1	1	2	2	4	10	16	26
Psychoneuroses .....	2	1	1	1	1	1	2	1	3	1	1	1	2	3	5
Psychoses .....	6	3	9	5	3	8	2	1	2	1	1	1	12	9	21
Non-Psychotic .....	9	7	16	5	3	8	2	1	2	1	4	5	17	14	31
Normal Child .....	5	3	8	4	1	5	33	33	18	1	3	4	43	25	68
Undiagnosed .....															
TOTALS .....	581	323	904	150	95	245	93	45	138	50	39	89	874	502	1376

TABLE 3C  
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES—ADULT GROUP (19 years and over)

Nature of Case	Edmonton and District			Calgary and District			Lethbridge and District			Ponoka and Red Deer District			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Educational Problem with Adequate Intellect .....	6	1	7	2	2	4	7	5	12	3	1	4	8	3	11
Intellectual Inadequacy .....	7	17	24	6	6	12	1	1	2	23	29	52	23	29	77
Emotional Disorder .....	1	2	3	1	1	2	1	1	2	1	1	2	3	4	7
Thinking Disorder .....	3	4	7	3	3	6	1	1	2	1	1	2	6	4	10
Speech Disorder .....	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Faulty Feeding Habits .....	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Sleep Disturbances .....	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Anti-Social Trends .....	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Sexual Difficulties .....	2	3	5	4	16	20	1	1	2	5	5	10	5	2	7
Alcohol Disorders .....	3	3	6	3	10	13	6	16	22	5	5	10	18	40	58
Psychoneuroses .....	2	2	4	7	5	12	16	18	34	2	2	4	27	23	50
Psychoses .....	1	1	2	14	5	19	16	4	20	1	1	2	31	15	46
Normal .....	1	1	2	2	2	4	2	2	4	2	1	3	4	4	8
Undiagnosed .....	1	1	2	1	2	3	22	11	33	4	10	14	27	23	50
Totals: Table 3C .....	25	27	52	41	39	80	71	59	130	18	25	43	155	150	305
Table 3B .....	581	323	904	150	95	245	93	45	138	50	39	89	874	502	1376
Table 3A .....	121	60	181	35	35	70	17	11	28	11	6	17	204	112	316
GRAND TOTALS .....	727	410	1137	246	169	415	181	115	296	79	70	149	1233	764	1997

TABLE 4  
SOURCES REFERRING NEW CASES TO THE CLINICS

Referring Source	Edmonton and District			Calgary and District			Lethbridge and District			Ponoka and Red Deer District			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Schools and School Authorities .....	263	103	366	43	24	67	43	21	64	25	10	35	374	158	532
Private Doctors and Medical Clinics .....	126	66	192	33	25	58	32	45	77	21	38	59	212	174	386
Medical Clinics, as Rehabilitation, Cerebral Palsy, T.B., O.P.D. ....	27	12	39	17	8	25	4	2	6	...	...	...	48	22	70
Health Units, Medical Health Officers, Public Health Nurses .....	95	56	151	14	11	25	21	9	30	10	13	23	140	89	229
Child Welfare Agencies, Provincial and Municipal Juvenile and Family Court, Juvenile Offenders' Branch, Bowden Institution .....	74	78	152	39	24	63	3	5	8	...	1	1	116	108	224
Provincial Gaols, Adult Courts .....	19	20	39	4	1	5	8	3	11	4	...	4	35	24	59
Parents, Relatives, Friends, and Self .....	3	3	6	3	1	4	38	1	39	...	...	...	44	5	49
Department of Public Health .....	95	54	149	65	44	109	23	18	41	12	8	20	195	124	319
Other Sources .....	15	9	24	...	...	...	7	7	14	7	...	...	15	16	31
Other Sources .....	10	9	19	28	31	59	9	4	13	7	...	7	54	44	98
TOTALS .....	727	410	1137	246	169	415	181	115	296	79	70	149	1233	764	1997

TABLE 5  
MAJOR RECOMMENDATIONS MADE IN REGARD TO NEW CLINIC CASES

Recommendations	Edmonton and District			Calgary and District			Lethbridge and District			Ponoka and Red Deer District			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Admission to:															
(a) Mental Hospital .....	4	3	7	3	...	3	14	16	30	7	2	9	28	21	49
(b) Provincial Training School .....	26	30	56	25	19	44	15	14	29	8	8	16	74	71	145
Placement in:															
(a) Protective or Correctional Home or Institution .....	19	35	54	2	...	2	...	...	...	...	...	...	21	35	56
(b) Foster Home .....	19	9	28	2	1	3	...	2	2	...	...	...	21	12	33
Educational Advice:															
(a) Modified School Program or Special Class Placement .....	177	63	240	9	6	15	23	6	29	16	7	23	225	82	307
(b) Vocational Counselling .....	14	12	26	3	...	3	...	1	1	1	2	3	18	15	33
(c) Other .....	53	33	86	3	2	5	3	...	3	3	6	9	62	41	103
Modified Home Management .....	117	55	172	55	31	86	19	7	26	9	8	17	200	101	301
Referred for Medical Treatment .....	91	41	132	8	10	18	15	11	26	13	17	30	127	79	206
Treatment in Guidance Clinic .....	115	71	186	104	67	171	9	17	26	8	14	22	236	169	405
Other Recommendations .....	92	58	150	32	33	65	83	41	124	14	6	20	221	138	359
TOTALS .....	727	410	1137	246	169	415	181	115	296	79	70	149	1233	764	1997

TABLE 6  
SUMMARY OF THE NUMBER OF MENTAL DEFECTIVES EXAMINED, BY YEARS

Year	I.Q. 0 to 25 Probably Idiots			I.Q. 26 to 50 Probably Imbeciles			I.Q. 51 to 75 Probably Morons			I.Q. Unknown, Mental Deficiency Indicated			Totals			Percentage of New Cases	Cumulative Totals
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T		
	Number of Mental Defectives Examined to 1951																
1951	7	13	20	33	35	68	85	70	155	3	6	9	128	124	252	20.0%	2998
1952	7	4	11	36	31	67	114	94	208	4	2	6	161	131	292	22.7%	3250
1953	6	4	10	30	39	69	102	68	170	19	7	26	157	118	275	18.1%	3542
1954	3	4	7	42	43	85	125	93	218	13	12	25	183	152	335	22.2%	4152
1955	5	3	8	54	40	94	127	95	222	30	17	47	216	155	371	25.6%	4523
1956	7	5	12	65	46	111	146	88	234	27	21	48	245	160	405	25.0%	4928
1957	11	13	24	40	32	72	115	86	201	18	23	41	184	154	338	20.7%	5266
1958	16	11	27	38	29	67	119	80	199	24	27	51	197	147	344	18.7%	5610
1959	13	10	23	56	44	100	159	121	280	27	15	42	255	190	445	22.3%	6055

Notes: I.Q.—Intelligence Quotient.

M—Male F—Female T—Totals



## ACTIVE TREATMENT MENTAL HOSPITALS

THE PROVINCIAL MENTAL HOSPITAL, PONOKA

THE PROVINCIAL MENTAL INSTITUTE, EDMONTON

The Provincial Mental Hospital, Ponoka, admitted 754 patients, 438 males, 316 females (including readmissions). The Provincial Mental Institute, Edmonton, admitted 1,022 patients, 605 males, 417 females (including readmissions). The total number of admissions to these two active treatment hospitals was 1,776, 1,043 males, 733 females. The total number of admissions (including readmissions) was 117 greater than the previous year. Again this increase was approximately the figure which has been usual for many years. The Provincial Mental Institute admitted 121 remand cases, whereas the Provincial Mental Hospital admitted 19.

The discharge rate of the two hospitals averaged approximately 85%. This was five percent higher than the previous year, and might indicate a trend toward greater success in the treatment and rehabilitatory services.

Both active treatment hospitals reported the extensive and successful use of the tranquillizer and antidepressant drugs, and group therapy. Both hospitals reported an appreciable reduction in the use of Electro and Insulin Shock therapy. There was also extension of the "Open-door" policy in both hospitals.

The female patient population of the Provincial Mental Hospital, Ponoka, was reduced temporarily by some 200 patients who were transferred to Deerhome while renovations were being carried out on a women's building at Ponoka. An additional number of mentally deficient patients (approximately 40 women) were transferred to Deerhome for permanent residence there. The Provincial Mental Hospital also transferred 66 patients (43 men, 23 women) to Rosehaven, Camrose. The Provincial Mental Institute transferred 26 patients (20 men, 6 women) to Deerhome, and 54 patients (23 men, 31 women) to Rosehaven.

The combined population of the two active treatment hospitals was reduced. In the case of the Provincial Mental Hospital, Ponoka, this was largely on a temporary basis, while in the case of the Provincial Mental Institute, Edmonton, there was an actual reduction of seven patients.

The Nurses' training programs continued. Ten students completed the combined course in General and Psychiatric Nursing at the Provincial Mental Hospital, Ponoka. Sixteen Graduate Nurses completed the six months' course in Psychiatric Nursing at the Provincial Mental Hospital. Six male students completed

**TABLE 1**  
**TABULATED SUMMARY—INSTITUTIONS—MOVEMENT OF POPULATION**

Institutions	Patients in Hospital December 31st, 1958			Admissions (Excluding Transfers)			Discharges			Deaths			Patients in Hospital December 31st, 1959		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
<b>ACUTE MENTAL HOSPITALS</b>															
P.M.H., Ponoka .....	836	542	1378	438	316	754	382	276	658	58	21	79	777	257	1034
P.M.I., Edmonton .....	973	461	1434	605	417	1022	475	378	853	67	26	93	984	443	1427
Total .....	1809	1003	2812	1043	733	1776	857	654	1511	125	47	172	1761	700	2461
<b>CHRONIC MENTAL HOSPITALS</b>															
*Rosehaven, Camrose .....	281	214	495	*67	*54	*121	...	...	...	63	50	113	282	221	503
P.A.M.H., Claresholm .....	...	98	98	...	3	3	...	...	...	...	5	5	...	106	106
P.A.M.H., Raymond .....	...	132	132	...	...	...	...	...	...	...	2	2	...	133	133
Total .....	281	444	725	67	57	124	...	...	...	63	57	120	282	460	742
<b>INSTITUTIONS FOR MENTAL DEFECTIVES,</b>															
RED DEER															
Provincial Training School .....	402	356	758	56	28	84	11	16	27	5	6	11	403	331	734
**Deerhome .....	175	160	335	**73	**308	**381	4	6	10	...	4	4	238	437	675
Total .....	577	516	1093	129	336	465	15	22	37	5	10	15	641	768	1409
Grand Total .....	2667	1963	4630	1239	1126	2365	872	676	1548	193	114	307	2684	1928	4612

\*Rosehaven, Camrose: All Admissions by Transfer from Other Alberta Mental Hospitals.

\*\*Deerhome, Red Deer: All Admissions by Transfer from Other Alberta Mental Hospitals, with the exception of 12 Male and 11 Female, for a total of 23 Direct Admissions.

the three year course at the above Hospital also. At the Provincial Mental Institute, Edmonton, eight men and one woman completed the three year course.

One hundred and thirty-one students from the general hospital Schools of Nursing were given the eight weeks of affiliation training at the Provincial Mental Hospital, Ponoka, and 196 were given similar affiliation training at the Provincial Mental Institute, Edmonton.

In connection with construction, work was commenced on new Nurses' Residence Annexes, one at the Provincial Mental Hospital and one at the Provincial Mental Institute. A new Laundry was completed at the Provincial Mental Institute. Renovation of the women's wards known as F4, 5 and 6 was commenced at the Provincial Hospital, Ponoka, which accounted for the temporary transfer of women patients to Deerhome, Red Deer.

TABLE 2  
DIAGNOSIS BY FIRST ADMISSION

DIAGNOSTIC CLASSIFICATION	Male	Female	Total
Syphilis with Psychosis .....	3	—	3
Schizophrenia (All Categories) .....	126	92	218
Manic Depressive (All Categories) .....	20	24	44
Involuntional Melancholia .....	11	24	35
Paranoia and Paranoid States .....	18	14	32
Senile Psychosis .....	80	42	122
Pre-Senile Psychosis .....	3	4	7
Psychosis with Cerebral Arteriosclerosis .....	57	26	83
Alcoholic Psychosis .....	23	2	25
Psychosis of Other Demonstrable Etiology .....	16	3	19
Other and Unspecified Psychoses .....	16	12	28
Anxiety Reaction .....	15	4	19
Hysterical Reaction .....	4	8	12
Obsessive Compulsive Reaction .....	2	2	4
Neurotic Depressive Reaction .....	17	14	31
Other and Unspecified Psychoneurotic Reactions .....	5	14	19
Pathological Personality (All Categories) .....	67	6	73
Immature Personality .....	2	3	5
Drug Addiction .....	4	7	11
Alcoholism Without Psychosis .....	62	14	76
Mental Deficiency Without Psychosis .....	11	20	31
Syphilis Without Psychosis .....	—	1	1
Primary Behaviour Disorders .....	8	6	14
Other and Unspecified Disorders of Character, Behaviour and Intelligence .....	8	13	21
Epilepsy .....	9	2	11
Mental Observation without Need for Further Psychiatric Care .....	28	9	37
Puerperal Psychosis .....	—	2	2
Other Non-Psychiatric Conditions .....	3	3	6
TOTALS .....	618	371	989

TABLE 3—TABULATED SUMMARY OF DEATHS IN INSTITUTIONS DURING 1959

DISEASE	P.M.H., Ponoka		P.M.I., Edmonton		P.A.M.H., Clareholm		P.A.M.H., Raymond		Rosehaven Camrose		P.T.S., Red Deer		Deerhome, Red Deer		TOTALS	
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
1. Tuberculosis of Respiratory System	2		2	2		2									2	2
3. Syphilis and Sequelae				1		1									3	3
17. All Other Diseases Classified as Infective and Parasitic	1		1	1		1									1	3
18. Neoplasms Malignant	2	3	5	3	1	4			1	2					6	15
19. Neoplasms Benign		1	1	1		1			4	2					2	2
20. Diabetes Mellitus				2		2			1	1					3	3
22. Vascular Diseases of Central Nervous System	5	2	7	2	2	2			3	7			2	2	8	14
25. Chronic Rheumatic Heart Disease				4	6	10									4	22
26. Arteriosclerotic and Degenerative Heart Disease of the Heart	11	2	13	10	3	13			15	6			1	1	38	51
27. Other Diseases of the Heart	6	8	14	2	2	2		1							8	19
28. Hypertension with Heart Disease				1	1	1									2	2
30. Influenza				3	3	3									1	1
31. Pneumonia	19	3	22	34	3	37		1	37	33		2			92	134
32. Bronchitis				1		1									1	1
33. Ulcer of Stomach and Duodenum	1		1	1		1									2	2
35. Intestinal Obstruction and Hernia	1		1						1	1					1	2
38. Nephritis and Nephrosis	3		3						1						4	4
41. Nongenital Malformations															1	1
43. Senility	4		4			1									4	5
46. All Other Diseases	3	2	5	8	5	13			1	1			1	1	13	25
GRAND TOTALS	58	21	79	67	26	93	5	2	63	50	5	6	4	4	193	307

## PROVINCIAL MENTAL HOSPITAL, PONOKA

T. C. MICHIE, M.D., R.C.P.S. (C.), *Medical Superintendent*

## PATIENT POPULATION CHANGES

The number of patients in residence on January 1st, 1959, was 1,378, and of these 836 were male and 542 female. On December 31st, 1959, the number in residence was 1,034 of whom 777 were male and 257 female. This was an overall reduction of 344 patients. The details are as set out in Table I. The disproportionate reduction in female patients was partly due to the temporary transfer of over 200 to Deerhome, and an increase in the number of those transferred to the Provincial Auxiliary Mental Hospital at Claresholm.

## ADMISSION OF PATIENTS

There were 754 patients admitted, exclusive of transfers from other Provincial Mental Institutions. Of these 438 were male, and 316 female.

There was a relative increase in those admitted by Warrant, and a decrease in the number admitted by Medical Certificates. The ratio of those who came voluntarily was essentially unchanged, this being 31% of those admitted under "The Mental Diseases Act."

14 patients were admitted by transfer.

## SEPARATION OF PATIENTS

658 patients were discharged, of whom 382 were male, and 276 female. This was an increase of 68 over the previous year. 355 patients were transferred to other institutions, and more than half of these were women temporarily moved to Deerhome to make possible renovations to this hospital.

79 patients died, nearly all of whom were in very advanced years.

## ACCIDENTS AND ELOPEMENTS

20 patients suffered from fractures, 11 of these being men and nine women. In nearly all instances, these were among the aged. This was a slight decrease over the previous year.

There were no suicidal deaths.

A relatively few patients left the hospital without permission.

## GENERAL HEALTH OF PATIENTS

The general health of patients throughout the year was good. There were no epidemics.

Three men were transferred to the Tuberculosis Unit at the Provincial Mental Institute, Edmonton.

## CLINICAL WORK

There was increased emphasis on group therapy in many forms. Wide use was made of the so called tranquilizing and



antidepressant drugs. The utilization of electro-shock therapy was sharply decreased. When used, it was for the most part as an adjuvant to other forms of therapy in the initial phase of treatment. Insulin-coma therapy was continued for a limited number of Schizophrenic patients. Approximately half the patients were accommodated on open wards. The aim was to keep restrictive measures at a minimum. From time to time, Medical Specialists were called in consultation from Edmonton.

#### OCCUPATIONAL THERAPY

If anything, there was increased emphasis on this form of treatment. Its ramifications extended far beyond formal classes. It was found that those formerly considered helpless patients, could with proper support and direction, undertake a great variety of projects. This was to the advantage of the hospital community in general, and to the patient individually.

An innovation during the year was the permission granted to the Ponoka Art Club to conduct their activities at the hospital. This Club had been in operation for some time in the Town of Ponoka for local residents, under the direction of The Department of Extension of the University of Alberta. Facilities were offered to the Club and accepted, whereby classes could be held at the hospital, with the provision that a reasonable number of patients might attend. It is felt this project has been successful. The residents of Ponoka and district, who were members of the Club, co-operated in a highly commendable manner.

The Library and Canteen continued to give excellent service to the patients.

#### RECREATIONAL THERAPY

The program was elaborate and varied. It included a great number of activities designed to suit the season of the year, and the needs of the groups, large and small. It encompassed drama, music, cultural projects, and also the usual sports activities. It was closely integrated with the Nursing and Occupational Therapy services.

#### RELIGIOUS SERVICES

The Clergy from the Town of Ponoka held services regularly each Sunday, and made frequent visits to individual patients, either at the request of the latter, or their physicians. The Clergy at all times had full access to the hospital and did everything possible to provide a much needed service.

#### SOCIAL SERVICES—SOCIAL WORKER

The incumbent resigned midway through the year, and was replaced by a male Psychiatric Nurse, who had shown aptitude for the work. Almost 400 calls were made throughout the Southern half of the Province. These were concerned with after-care, the obtaining of information regarding patients, or arrangements preparatory to discharge. This entailed the travelling of approximately 9,000 miles. Liaison was maintained by the Social

Worker between the hospital and various Welfare Organizations. The Social Worker also assisted at the hospital in group therapy, and in the preparation of patients for discharge.

#### PSYCHOLOGICAL SERVICES—PSYCHOLOGIST

One Psychologist was employed. She administered tests to 224 patients and carried out examinations, in one form or another, on 30% of all admissions. Assistance was given in group therapy, and psychological tests were administered to student nurses. She participated in the teaching program of the School of Nursing, and also attended a number of Guidance Clinics in Central Alberta.

#### DENTAL SERVICES

Adequate dental service was provided to all patients by a full time dentist. New drilling equipment was installed. All newly admitted patients were seen by the dentist. Those requiring prolonged hospitalization were examined periodically. Many hundreds of individual treatment procedures were carried out. He also provided dental service to the patients in the Provincial Auxiliary Mental Hospitals at Claresholm and Raymond.

#### X-RAY SERVICES

Almost 4,000 examinations were made on patients and staff members. Chest plates were referred to the staff of the Baker Memorial Sanatorium, Calgary, for interpretation. Whenever necessary, other plates were sent to radiologists in Edmonton and Red Deer.

#### LABORATORY SERVICES

In general, the services provided were adequate. The pathologist resigned toward the end of the year, and no replacement was available. When necessary, specimens were referred to the Provincial Laboratory of the University, for examination. Electroencephalographic tracings were interpreted by an Edmonton neurologist.

#### MEDICAL EDUCATION

A program was initiated providing instruction periods here of two weeks to groups of medical students from the senior year at the university. The number in residence varied from three to five.

One member of the medical staff gave lectures at the University of Alberta.

Some visiting medical service was provided for patients at Deerhome, Red Deer.

Various members of the Medical Staff and others addressed public meetings, most of which were arranged by Home and School Associations.

Guidance Clinic groups from this hospital were sent to give service from time to time at various points in Central Alberta.

## SCHOOL OF NURSING

The Teaching program was essentially unchanged. There were six full time Instructors.

In the basic four year Course, leading to qualification in General and Psychiatric Nursing, 39 students were registered. Of these, 26 were in residence, and 13 were affiliated with General Hospital Schools of Nursing. During the year, ten students successfully passed the Con-joint Examination set by the University of Alberta making them eligible to graduate from this School, and for registration.

42 male students were enrolled in the three year course in Psychiatric Nursing. Six completed the course and received Certificates.

The arrangement for an eight week affiliation course in Psychiatric Nursing, for students from General Hospital Schools of Nursing was continued throughout the year. The number so received during the year was 131. In addition, 11 Graduate Nurses without previous Psychiatric training, were accepted for deferred affiliation.

In the six months course in Psychiatric Nursing for Graduate Nurses, eight students completed the course in March, and eight in July. It is of interest that three of these women subsequently enrolled in the Teaching and Supervision Course at the University of Alberta. Most of the others continued in Psychiatric Nursing here or elsewhere.

A group of Public Health Diploma Course students from the University of Alberta spent two weeks here for field experience.

## NURSING SERVICES

Nursing services were maintained at very satisfactory standards. The role of the nurse is changing decidedly in psychiatric treatment, and the nursing staff not only adjusted to these alterations, but led in many ways in setting the patterns of treatment orientation.

## VISITORS

The visiting of patients by relatives was encouraged. Visiting hours were as before, morning and afternoon every day of the year.

Inspections of the hospital were made on a number of occasions by the Minister of Health, Dr. J. Donovan Ross, and the Deputy Minister of Health, Dr. A. Somerville. The Director of the Division of Mental Health, Dr. R. R. MacLean, made frequent tours of the hospital. He was consulted on all treatment procedures, and his advice on such matters was often sought and freely given.

A number of local organizations were actively interested in the patients welfare, and contributed time and effort in a variety of ways.

The hospital was pleased to welcome as visitors Dr. Clyde Simson, Director of Children's Services, Lafayette Clinic, Mental

Health Services, State of Michigan, and Dr. Martin Roth, Professor of Psychiatry at the University of Durham, England. The former addressed the Medical Staff, and the latter the Medical and Nursing Staff. Dr. Roth was accompanied by Dr. Keith Yonge, Professor of Psychiatry, University of Alberta.

Under the auspices of the Calgary Branch of the Canadian Mental Health Association, a number of groups of representative citizens from Calgary toured the hospital, and were made acquainted with treatment procedures.

The Visiting Board carried out the annual inspection with its usual thoroughness.

#### THE EUGENICS BOARD

Five meetings were held at this hospital. Seven male and 21 female patients were presented to the Board. 16 patients from other Provincial Mental Institutions were presented at meetings of the Board here. Ten patients, three male and seven female, were sexually sterilized.

#### SURGICAL SERVICES

Surgical services were rendered by the regularly appointed consultant from Red Deer. Service was also given by specialists from Edmonton and elsewhere, as the necessity arose.

#### HOUSEKEEPING DEPARTMENT

The standards of cleanliness and attractiveness were well maintained.

#### FIRE PROTECTION

The fire brigade held periodic practices. The equipment was efficient and modern. Its operation was closely integrated with the training given to the nursing staff in fire protection.

#### NEW BUILDINGS AND EQUIPMENT

The addition to Male 12 building was completed. It supplied additional needed day-room and toilet facilities.

The new Nurses' Residence was essentially completed and the classrooms were occupied late in the year. These provided greatly improved teaching accommodation.

Early in the year, Female Four, Five and Six building was evacuated, the patients being moved temporarily to Deerhome at Red Deer. A massive renovation and reconstruction of this building was commenced. The work was well under way by the end of the year.

A reorientation of the power house was begun for the installation of new machinery, and to make possible an extension to the main kitchen. Demolition and reconstruction of the power house was proceeded with during the year.



The tall, brick smoke stack for so long a landmark in this area, and now no longer of use, was demolished.

Reconstruction was begun late in the year of the closed-in verandahs on the front of the main building.

#### BUSINESS OFFICE

This Department operated with efficiency. The Business Manager was responsible for the supervision of the various ancillary services.

#### PROVINCIAL MENTAL HOSPITAL FARM

The yield of field crops was relatively good, although the summer was dry. There was an increase in egg and milk production. The dairy herd was healthy. The supply of pork was adequate.

#### ANCILLARY SERVICES

In general, these various hospital departments, including the laundry, linen room, print shop, sewing room, shoe shop and tailor shop provided satisfactory services.

#### THE DEPARTMENT OF PUBLIC WORKS

##### *Maintenance Department*

This Department was responsible for the maintenance and repair of buildings. This included plumbing, and the distribution of power. A great deal of redecorating was done. In addition, a number of fairly extensive internal reconstruction projects were completed.

##### *Mechanical Branch*

This Department, under the direction of the Chief Engineer, provided an adequate supply of heat, light and water to the buildings.

#### CONCLUSION

For some years, and in the light of new therapeutic agents, a changing pattern in the operation of the hospital has been apparent. This was emphasized in the past year. The number of admissions was the highest on record. This did not necessarily mean an increase in the incidence of mental illness, but more likely greater utilization of the hospital by those in need. There was an increase in the public interest in the treatment facilities. The discharge rate also was higher than ever before, and many of those discharged had spent long periods in hospital. There was a definite increase in the number admitted who were suffering from the disorders associated with senility, and in this group, only continued care could be anticipated. It seemed fairly apparent that the turnover of patients at this hospital was increasing. There were still those admitted, however, suffering from organic disorders, and profound psychogenic disturbances, who will require long term or permanent hospitalization, unless more effective therapeutic agents are discovered.

Those responsible for the administration of the hospital are deeply grateful for the encouragement and direction given by the senior officers of The Department of Public Health.



TABLE 1  
MOVEMENT OF PATIENT POPULATION DURING THE YEAR 1959

	M			F			T		
In residence December 31st, 1958 .....	836			542			1378		
On Leave or otherwise absent .....	18			30			48		
On books December 31st, 1958 .....	854			572			1426		
ADMISSIONS:									
First Admissions:									
	M	F	T	M	F	T	M	F	T
Voluntary .....	50	53	103						
Certificates .....	61	51	112						
Warrant .....	174	69	243						
				285	173	458			
Re-admissions:									
Voluntary .....	60	63	123						
Certificates .....	20	43	63						
Warrant .....	72	37	109						
M. D. Act .....	1	....	1						
				153	143	296			
Total admissions .....				438	316	754			
Transfers in .....				5	9	14			
							443	325	768
							1297	897	2194
SEPARATIONS:									
Discharges:									
Recovered .....	119	84	203						
Improved .....	155	124	279						
Unimproved .....	8	7	15						
Not Psychotic .....	100	61	161						
				382	276	658			
Deaths .....				58	21	79			
Transfers out .....				48	307	355			
							488	604	1092
							1297	897	2194
On books December 31st, 1959 .....									
							809	293	1102
							32	36	68
							777	257	1034

TABLE 2  
PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA  
RESIDENT PATIENT POPULATION BY PSYCHOSES—December 31st, 1959

CLASSIFICATION:	Male	Female	Total
Syphilis with Psychosis .....	40	2	42
Schizophrenia .....	432	97	529
Manic Depressive .....	40	29	69
Involuntal Melancholia .....	6	11	17
Paranoia and Paranoid States .....	59	21	80
Senile Psychosis .....	21	19	40
Pre-senile Psychosis .....	5	4	9
With Cerebral Arteriosclerosis .....	10	18	28
Alcoholic Psychosis .....	12	1	13
Other and Unspecified Psychoses .....	87	21	108
Anxiety .....	5	3	8
Hysteria .....	1	1	2
Obsessive Reaction .....	....	1	1
Neurotic Depressive Reaction .....	3	9	12
Other Psychoneurotic Reactions .....	3	4	7
Pathological Personality .....	8	2	10
Chronic Alcoholism .....	6	3	9
Drug Addiction .....	1	1	2
Mental Deficiency .....	19	3	22
Epilepsy .....	5	1	6
Other and Unspecified .....	3	5	8
Syphilis without Psychosis .....	2	1	3
Without need for further care .....	4	....	4
Other non-psychiatric conditions .....	5	....	5
TOTALS .....	777	257	1034

TABLE 3  
PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA  
FIRST ADMISSIONS DURING 1959 BY PSYCHOSES

CLASSIFICATION:	Male	Female	Total
Syphilis with Psychosis .....	2	....	2
Schizophrenia .....	58	41	99
Manic Depressive .....	11	9	20
Involuntal Psychosis .....	8	12	20
Paranoid Conditions .....	9	6	15
Senile Psychosis .....	44	21	65
Pre-senile Psychosis .....	....	3	3
With Cerebral Arteriosclerosis .....	27	7	34
Alcoholic Psychosis .....	12	1	13
Other and Unspecified .....	11	11	22
Anxiety Reaction .....	12	1	13
Hysterical Reaction .....	2	3	5
Obsessive-compulsive Reaction .....	1	....	1
Neurotic Depressive Reaction .....	7	8	15
Other Psychoneurotic conditions .....	1	4	5
Pathological Personality .....	16	1	17
Alcoholism .....	27	8	35
Drug Addiction .....	3	7	10
Mental Deficiency .....	3	8	11
Epilepsy .....	5	1	6
Other and unspecified .....	7	11	18
Syphilis without Psychosis .....	....	1	1
Mental observation without need for further medical care .....	16	6	22
Other non-psychiatric conditions .....	3	3	6
Totals .....	285	173	458

TABLE 4  
PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA  
AGE OF FIRST ADMISSIONS DURING 1959

Age	Male	Female	Total
Under 15 years .....	4	5	9
15 to 19 years .....	17	12	29
20 to 24 years .....	23	7	30
25 to 29 years .....	24	17	41
30 to 34 years .....	31	24	55
35 to 39 years .....	31	14	45
40 to 44 years .....	29	10	39
45 to 49 years .....	18	17	35
50 to 54 years .....	12	12	24
55 to 59 years .....	11	14	25
60 to 64 years .....	8	2	10
65 to 69 years .....	9	9	18
70 to 79 years .....	48	13	61
80 years and over .....	20	17	37
TOTALS .....	285	173	458

TABLE 5  
PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA  
DISCHARGES BY PSYCHOSES AND CONDITION ON DISCHARGE

CLASSIFICATION	Recovered		Improved		Un- changed		Not Psy.		Totals		
	M	F	M	F	M	F	M	F	M	F	T
Syphilis with Psychosis .....	....	1	1	....	....	....	....	....	1	1	2
Schizophrenia .....	50	40	80	62	4	2	....	....	134	104	238
Manic Depressive .....	25	23	7	10	....	....	....	....	32	33	65
Involuntal Psychosis .....	4	8	4	11	....	1	....	....	8	20	28
Paranoid States .....	....	2	25	11	2	....	....	....	27	13	40
Senile Psychosis .....	....	....	3	4	1	....	....	....	4	4	8
With Cerebral Arteriosclerosis .....	1	....	3	1	....	....	....	....	4	1	5
Alcoholic Psychosis .....	27	3	3	....	....	....	....	....	30	3	33
Other and Unspecified .....	5	5	9	11	....	....	....	....	14	16	30
Anxiety Reaction .....	2	1	11	2	1	2	....	....	14	5	19
Hysterical Reaction .....	1	....	1	3	....	....	....	....	2	3	5
Obsessive-compulsive Reaction .....	....	....	....	1	....	....	....	....	....	1	1
Neurotic Depressive Reaction .....	4	1	7	4	....	1	....	....	11	6	17
Other Psychoneurotic Reactions .....	....	....	1	4	....	1	....	....	1	5	6
Pathological Personality .....	....	....	....	....	....	....	23	7	23	7	30
Alcoholism .....	....	....	....	....	....	....	37	12	37	12	49
Drug Addiction .....	....	....	....	....	....	....	2	10	2	10	12
Behaviour Disorders .....	....	....	....	....	....	....	4	1	4	1	5
Mental Deficiency .....	....	....	....	....	....	....	9	7	9	7	16
Other and unspecified .....	....	....	....	....	....	1	11	1	11	1	12
Epilepsy .....	....	....	....	....	....	....	4	4	4	4	8
Syphilis without Psychosis .....	....	....	....	....	....	....	1	....	1	....	1
Mental observation without need for further medical care .....	....	....	....	....	....	....	15	6	15	6	21
Other non-psychiatric conditions .....	....	....	....	....	....	....	4	3	4	3	7
TOTALS .....	119	84	155	124	8	7	100	61	382	276	658

TABLE 6  
PROVINCIAL MENTAL HOSPITAL—PONOKA, ALBERTA  
DISCHARGES BY PSYCHOSIS AND DURATION OF RESIDENCE

CLASSIFICATION	Under 3 months		Under 6 months		Under 1 year		Over 1 year		Totals		
	M	F	M	F	M	F	M	F	M	F	T
Syphilis with Psychosis .....	....	1	....	....	....	....	1	....	1	1	2
Schizophrenia .....	47	54	37	25	14	10	36	15	134	104	238
Manic Depressive .....	21	25	8	2	1	1	2	5	32	33	65
Involuntional Psychosis .....	3	13	4	5	1	1	....	1	8	20	28
Paranoid States .....	2	5	10	3	7	1	8	4	27	13	40
Senile Psychosis .....	2	2	2	2	....	....	....	....	4	4	8
With Cerebral Arteriosclerosis .....	3	....	1	....	....	....	....	1	4	1	5
Alcoholic Psychosis .....	26	2	1	1	1	....	2	....	30	3	33
Other and unspecified .....	6	9	2	6	1	1	5	....	14	16	30
Anxiety Reaction .....	11	2	2	1	1	2	....	....	14	5	19
Hysterical Reaction .....	2	1	....	1	....	1	....	....	2	3	5
Obsessive-compulsive Reaction .....	....	....	....	1	....	....	....	....	....	1	1
Neurotic Depressive Reaction .....	7	4	2	....	2	2	....	....	11	6	17
Other Psychoneurotic Reactions .....	....	4	1	1	....	....	....	....	1	5	6
Pathological Personality .....	12	4	8	2	2	1	1	....	23	7	30
Alcoholism .....	30	8	5	2	2	2	....	....	37	12	49
Drug Addiction .....	1	9	....	1	1	....	....	....	2	10	12
Behaviour Disorders .....	3	1	1	....	....	....	....	....	4	1	5
Mental Deficiency .....	4	7	2	....	2	....	1	....	9	7	16
Other and unspecified .....	1	7	....	3	....	1	....	....	1	11	12
Epilepsy .....	1	2	3	1	....	....	....	1	4	4	8
Syphilis without Psychosis .....	1	....	....	....	....	....	....	....	1	....	1
Mental observation without need for further medical care .....	14	6	....	....	....	....	1	....	15	6	21
Other non-psychiatric conditions .....	4	3	....	....	....	....	....	....	4	3	7
TOTALS .....	201	169	89	57	35	23	57	27	382	276	658

TABLE 7  
PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA  
CAUSES OF DEATH DURING 1959  
ABRIDGED INTERNATIONAL CLASSIFICATION

CLASSIFICATION	Male	Female	Total
3. Syphilis and sequelae .....	2	....	2
17. Other infective and parasitic .....	1	....	1
18. Malignant neoplasms .....	2	3	5
19. Benign and unspecified neoplasms .....	....	1	1
22. Vascular lesions affecting C.N.S. ....	5	2	7
26. Arteriosclerotic and degenerative heart disease .....	11	2	13
27. Other diseases of the heart .....	6	8	14
31. Pneumonia .....	19	3	22
33. Ulcer of stomach and duodenum .....	1	....	1
35. Intestinal obstruction and hernia .....	1	....	1
38. Nephritis and Nephrosis .....	3	....	3
45. Senility etc., and ill-defined causes .....	4	....	4
46. All other diseases .....	3	2	5
TOTALS .....	58	21	79

TABLE 8  
DEATHS BY PSYCHOSES

	Male	Female	Total
Syphilis with Psychosis .....	4	....	4
Schizophrenia .....	9	3	12
Manic Depressive .....	1	....	1
Involuntional Melancholia .....	1	2	3
Paranoid States .....	2	....	2
Senile Psychosis .....	15	7	22
With Cerebral Arteriosclerosis .....	16	3	19
Alcoholic Psychosis .....	1	....	1
Other and Unspecified .....	7	3	10
Neurotic Depressive .....	1	2	3
Other non-psychiatric conditions .....	1	1	2
TOTALS .....	58	21	79

## PROVINCIAL MENTAL INSTITUTE, EDMONTON

A. D. MACPHERSON, M.D., R.C.P.S.(C.),  
*Medical Superintendent*

## PATIENT POPULATION CHANGES

On December 31, 1958, there were in residence 973 male and 461 female patients, a total of 1,434. The number in residence December 31, 1959, was 984 men and 443 women, a total of 1,427. This was a decrease of seven.

## ADMISSION OF PATIENTS

During the past year, 605 men and 417 women were admitted, a total of 1,022. In addition, 5 men and 6 women were transferred from different Mental Institutions in the province, making a total of 610 men and 423 females admitted. A combined total of 1,033 was admitted during the year. This was an increase from the previous year of 97. Admissions by Voluntary applications were 371, by Medical Certificates 279, by Warrant 362, and under the Mental Defectives Act there were 10.

## SEPARATION OF PATIENTS

During the year 475 men and 378 women, a total of 853 was discharged. This was an increase over the previous year of 140. In addition, 47 men and 40 women, a total of 87, was transferred to other Mental Institutions. There were 93 deaths, at least 67 being associated with degeneration changes due to old age, during the year. There were 53 autopsies performed. The total number of separations during the year was 1,033. During the year more than 1,800 patients were out on leave for periods longer than 24 hours.

## GENERAL HEALTH

This was good during the year. There were no epidemics. T.A.B.T. immunization was carried out on all admissions and new staff. Chest X-rays were done on all new staff, plus a complete resurvey of all patients and staff.

## CLINICAL WORK

During the year, the use of tranquillizing drugs continued on a large scale. It is doubtful if the quantity used was increased, but there were more new drugs taken into use. New preparations were constantly tried as they become available. It has become increasingly evident that no one tranquillizer was the answer. There was constant review of the effects of the various tranquillizers being used. There was a marked improvement, especially in the continued treatment group. There was a considerable reduction in the Electric Shock treatment used, and the use of Insulin coma decreased markedly. The use of group therapy was expanded, and there were group therapy programs on most of the wards. The use of the open-door policy was expanded.

Approximately one-half the patients had the privilege of being out and around the grounds by themselves. Nearly all the remaining patients were accompanied out by nursing staff.

#### OCCUPATIONAL THERAPY

This Department continued to play a very large part in the treatment program. Therapy was carried on in nearly all the wards, as well as in the Occupational Centre.

#### SOCIAL SERVICES

The work in this field continued to increase, especially in the investigation of family background, rehabilitation of discharged patients, and in public relations.

#### PSYCHOLOGISTS

This Department continued to be very busy. As far as possible, all new patients and especially all remand cases were given a battery of psychological tests. This work was invaluable in the clinical program. In addition, the psychologists took an active part in the group therapy program.

#### RECREATIONAL PROGRAM

A full-time program was continued. This covered all wards, and forms of recreational activity. The recreational activities began in the forenoon and continued through to evenings daily. The Department of Veterans' Affairs continued to assist in providing stage shows and tickets to many activities in the city. During the year, groups of volunteers from the Canadian Mental Health Association continued to take part in the patients' activities, and the Women's Catholic League and Lutheran Ladies' Group continued their visiting group program. The United Church also developed their visiting group program, and this group made visits to various wards. The canteen continued to function successfully and was used by both patients and staff.

#### RELIGIOUS SERVICES

The Lutheran Minister continued to be very helpful. He held services every Sunday and brought out visiting groups. The Roman Catholic services were held every Sunday. Anglican and United Church services were held alternating Sundays. The Jewish and Ukrainian women's organizations visited frequently. The Chinese Benevolent Association also visited regularly.

#### LIBRARY

This Department remained very active during the year. It was open daily. During the year the Institute was fortunate in receiving a very large number of donations of magazines for the library.

#### BEAUTY PARLOR

This Department remained very active. The number of patients receiving this treatment continued to increase constantly.



### DENTAL SERVICES

This Department continued to operate in its usual efficient manner. All patients were examined regularly during the year and, where required, treatment was carried out. All new admissions were also examined and treated. A total number of 4,010 procedures were carried out. In addition, the Dentist supplied services to Rosehaven Hospital, Camrose, and held clinics for students of the University of Alberta.

### X-RAY SERVICES

This Department continued to be very busy and efficient. During the year a total of 5,158 examinations was carried out. This was down somewhat from last year. In addition, this Department carried out Short Wave Diathermy treatments, B.C.G. vaccinations and Tuberculin tests of new staff and patients. B.C.G. vaccine was given to 42 staff.

### LABORATORY SERVICES

During the year a total of 12,000 examinations was done. This was down somewhat from the previous year. Both Laboratory and X-Ray Departments assisted in the training given to technicians from the school operated by the Department of Public Health, students being sent here for two-week periods of instruction.

### SURGICAL SERVICES

There were 58 major operations and 45 minor operations.

### ELECTROENCEPHALOGRAPH

A total of 350 E.E.G.'s, 125 E.C.G.'s, and 28 B.M.R.'s were carried out during the year. In addition the technician did the E.E.G. work at the Provincial Mental Hospital, Ponoka.

### SCHOOL OF NURSING

Nine students, eight men and one girl, graduated in Psychiatric Nursing in 1959, completing a three-year course. The affiliation program for student nurses from the general hospitals was continued. One hundred ninety-six students were given an eight-week course in Psychiatric Nursing throughout the year. The number of students in attendance on each course averaged 28. These affiliation students came from the Edmonton General Hospital, the Misericordia Hospital, the Royal Alexandra Hospital, the Holy Cross Hospital, Calgary, and the Lethbridge Municipal Hospital. In addition, 15 graduate nurses enrolled in the Diploma Course in Public Health Nursing at the University of Alberta spent two weeks at the Provincial Mental Institute for field experience. In-service training consisted of ward teaching and short courses of lectures were continued for all staff.

### BUILDING AND MAINTENANCE

The maintenance was kept up very well during the year. Construction was begun and completed on the extension of the Nurses' Residence.

## FIRE PROTECTION

Regular fire practices were held throughout the year. Instructions were given throughout the hospital to all new staff. The fire equipment was inspected, and was kept at a peak of efficiency. No fires occurred during the year.

## HOUSEKEEPING

This Department continued to function efficiently. Everything possible was done to keep the wards comfortable and attractive.

## LAUNDRY

This continued to be very busy. The new part was occupied, with its first-class equipment. This greatly increased the capacity of the laundry.

## TAILOR AND SEWING SHOP

Both Departments remained very busy. Work consisted mostly of repairs which were very well done, resulting in a very considerable saving of the clothing.

## SHOE REPAIRS

This Department remained very active and very busy. Excellent work was done.

## DIETARY DEPARTMENT

This Department continued to function very well. In addition to the large number of regular meals to staff and an average daily patient population amounting to around 1,500, there was also a large number of special diets required.

## POLICE COURT

This service continued to be very busy. A large number of cases were received "on remand". A number of the Medical Staff appeared in Court on numerous occasions in connection with this work. Although this service involved a considerable amount of work, it was felt this particular service was justified. There were a total of 177 remands during the year.

## BUSINESS OFFICE

This Department continued to be very busy. The work continued to expand. A Collection Department was added during the year. An addition of some up-to-date equipment facilitated the work.

## MEDICAL RECORDS

The work in this Department continued to be done efficiently.

## HOSPITAL FARM

1959 was a very good year. Crop production was high. Multiple production was the highest on record.

## GARDEN AND GROUNDS

The garden crop was very good, and the yield was high. The quality of vegetables was also very good. The production was sufficient to supply the hospital needs throughout the year.

## STAFF

The staff situation, both male and female, remained satisfactory. There was very little difficulty keeping the establishment filled except for a shortage of graduate nurses.

## VISITORS

During the year the hospital was visited regularly by the Honourable Dr. J. D. Ross, Dr. R. R. MacLean, Director, Division of Mental Health, and the Honourable Mr. G. Taylor. The Visiting Board carried out its annual inspection. A number of community organizations also conducted visits to the hospital, as did the Canadian Mental Health Association.

## PUBLIC RELATIONS

Members of the staff continued to address public organizations whenever possible on the work of the hospital and the problems in the psychiatric fields.

The work of the hospital continued to increase annually at a very constant rate. There were more people being admitted in the early stages of illness, and more returning in the early stages of relapses. This resulted in a greater number of discharges, and shorter stays in the hospital.

The present trend of community participation in the hospital activities and integration of the hospital as part of the community health programs, was evident during the year. This was very desirable and was encouraged by the hospital staff as much as possible. The extension of the open-door policy was facilitated by the above trend. The hospital staff has always been conscious of the advantage of open doors, but has been somewhat hindered by the community attitude up until recently. In conclusion, appreciation is expressed to the Honourable Dr. Ross and Dr. MacLean, for their sympathetic understanding and help.

TABLE 1  
MOVEMENT OF PATIENT POPULATION DURING 1959

	M	F	T	M	F	T
In residence December 31, 1958 .....				973	461	1434
On leave or otherwise absent .....				76	99	175
Total on books December 31, 1958 .....				1049	560	1609
ADMISSIONS:						
FIRST ADMISSIONS:						
(a) Voluntary .....	85	54	139			
(b) Medical Certificates .....	90	96	186			
(c) Warrant .....	156	46	202			
(d) Mental Defectives Act .....	2	2	4			
Total .....	333	198	531			
RE-ADMISSIONS:						
(a) Voluntary .....	138	94	232			
(b) Medical Certificates .....	28	65	93			
(c) Warrant .....	101	59	160			
(d) Mental Defectives Act .....	5	1	6			
Total .....	272	219	491			
TRANSFERS IN .....	5	6	11			
TOTAL ADMISSIONS .....	610	423	1033			
SEPARATIONS:						
DISCHARGES:						
(a) Recovered .....	196	240	436			
(b) Improved .....	111	41	152			
(c) Much Improved .....	99	66	165			
(d) Unchanged .....	69	31	100			
Total .....	475	378	853			
TRANSFERS OUT .....	47	40	87			
DEATHS .....	67	26	93			
TOTAL SEPARATIONS .....	589	444	1033			
Total on books December 31, 1959 .....				1070	539	1609
On leave or otherwise absent .....				86	96	182
Total in residence December 31, 1959 .....				984	443	1427

TABLE 2  
PSYCHOSES OF THE PATIENT POPULATION DECEMBER 31, 1959

	Male	Female	Total
300 Schizophrenic Disorders .....	635	289	924
301 Manic Depressive Reaction .....	42	36	78
302 Involutional Melancholia .....	4	23	27
303 Paranoia and Paranoid States .....	30	19	49
304 Senile Psychosis .....	39	20	59
305 Presenile Psychosis .....	2	11	13
306 Psychosis with Cerebral Arteriosclerosis .....	24	21	45
307 Alcoholic Psychosis .....	13	2	15
308 Psychosis of Other Demonstrable Etiology .....	44	10	54
309 Other and Unspecified Psychosis .....	54	26	80
310 Anxiety Reaction without mention of Somatic Symptoms .....	1	6	7
311 Hysterical Reaction without mention of Somatic Symptoms .....	.....	2	2
314 Neurotic—Depressive Reaction .....	6	4	10
318 Psychoneurotic Disorders, Other, Mixed and Unspecified Types .....	2	5	7
320 Pathological Personality .....	19	5	24
321 Immature Personality .....	1	1	2
322 Alcoholism .....	13	.....	13
324 Primary Childhood Behaviour Disorders .....	7	3	10
325 Mental Deficiency .....	92	39	131
326 Other and Unspecified Character, Behavior and Intelligence Disorders .....	2	1	3
020 Juvenile Neurosyphilis .....	1	.....	1
025 General Paralysis of the Insane .....	24	4	28
026 Other Syphilis of Central Nervous System .....	4	1	5
083 Late Effects of Acute Infectious Encephalitis .....	1	2	3
353 Epilepsy .....	7	7	14
688 Puerperal Psychosis .....	.....	1	1
793 Observation without need for further Medical care .....	3	1	4
Total .....	1070	539	1609

TABLE 3  
PSYCHOSIS BY FIRST ADMISSIONS—1959

	Male	Female	Total
300 Schizophrenic Disorders .....	68	51	119
301 Manic Depressive Reaction .....	9	15	24
302 Involutional Melancholia .....	3	12	15
303 Paranoia and Paranoid States .....	9	8	17
304 Senile Psychosis .....	36	21	57
305 Presenile Psychosis .....	3	1	4
306 Psychosis with Cerebral Arteriosclerosis .....	30	19	49
307 Alcoholic Psychosis .....	11	1	12
308 Psychosis of Other Demonstrable Etiology .....	16	3	19
309 Other and Unspecified Psychosis .....	5	1	6
310 Anxiety Reaction without Mention of Somatic Symptoms....	3	3	6
311 Hysterical Reaction without Mention of Somatic Symptoms...	2	5	7
313 Obsessive—Compulsive Reaction .....	1	2	3
314 Neurotic—Depressive Reaction .....	10	6	16
318 Psychoneurotic Disorders, Other, Mixed and Unspecified Types .....	4	10	14
320 Pathological Personality .....	51	5	56
321 Immature Personality .....	2	3	5
322 Alcoholism .....	35	6	41
323 Other Drug Addiction .....	1	.....	1
324 Primary Childhood Behavior Disorders .....	8	6	14
325 Mental Deficiency .....	8	12	20
326 Other and Unspecified Character, Behavior and Intelligence Disorders .....	1	1	2
353 Epilepsy .....	4	1	5
025 General Paralysis of the Insane .....	1	.....	1
083 Late Effects of Acute Infectious Encephalitis .....	.....	1	1
688 Puerperal Psychosis .....	.....	2	2
793 Observation without Need for Further Medical Care .....	12	3	15
Total .....	333	198	531

TABLE 4  
AGES OF PATIENTS ADMITTED DURING 1959

Ages	First Admission			Readmission			Transfers			Total		
	M	F	T	M	F	T	M	F	T	M	F	T
Under 15 years ....	2	4	6	.....	4	4	.....	.....	.....	2	8	10
15 to 19 years .....	26	16	42	7	9	16	.....	.....	.....	33	25	58
20 to 24 years .....	21	15	36	19	23	42	.....	.....	.....	40	38	78
25 to 29 years .....	39	22	61	27	21	48	.....	.....	.....	66	43	109
30 to 34 years .....	26	26	52	44	34	78	1	.....	1	71	60	131
35 to 39 years .....	46	15	61	43	37	80	.....	1	1	89	53	142
40 to 44 years .....	35	12	47	32	28	60	1	1	2	68	41	109
45 to 49 years .....	26	18	44	29	24	53	.....	1	1	55	43	98
50 to 54 years .....	10	13	23	38	14	52	1	.....	1	49	27	76
55 to 59 years .....	17	13	30	15	10	25	.....	1	1	32	24	56
60 to 64 years .....	15	6	21	7	4	11	.....	.....	.....	22	10	32
65 to 69 years .....	11	6	17	3	4	7	1	.....	1	15	10	25
70 and over .....	59	32	91	8	7	15	1	2	3	68	41	109
Total .....	333	198	531	272	219	491	5	6	11	610	423	1033



TABLE 5  
DISCHARGES CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSIS AND CONDITIONS FOR 1959

	Recovered			Improved			Much Improved			Unchanged			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
300 Schizophrenic Disorders .....	108	117	225	1	8	9	17	17	34	...	2	2	126	144	270
301 Manic Depressive Reaction .....	15	34	49	...	...	...	...	...	...	...	...	...	15	34	49
302 Involutional Melancholia .....	4	21	25	...	...	...	...	...	...	...	...	...	4	21	25
303 Paranoia and Paranoid States .....	1	...	1	2	1	2	8	4	12	...	...	...	11	4	15
304 Senile Psychosis .....	...	...	...	...	1	...	...	4	4	...	1	1	...	6	16
305 Presenile Psychosis .....	1	...	1	...	...	...	...	...	...	...	...	...	1	1	1
306 Psychosis with Cerebral Arteriosclerosis .....	...	...	...	...	4	4	4	7	11	...	1	1	...	12	16
307 Alcoholic Psychosis .....	18	2	20	...	...	...	1	...	...	...	...	...	19	2	21
308 Psychosis of Other Demonstrable Etiology .....	6	8	14	2	...	2	5	3	8	...	1	1	13	12	25
309 Other and Unspecified Psychosis .....	4	4	8	1	...	1	8	3	11	...	...	...	13	7	20
310 Anxiety Reaction .....	1	10	11	...	...	...	3	...	3	...	...	...	4	10	14
311 Hysterical Reaction .....	2	1	3	...	...	...	2	2	4	...	...	...	...	5	7
312 Obsessive-Compulsive Reaction .....	2	4	6	...	...	...	...	1	1	...	...	...	2	3	5
313 Neurotic-Depressive Reaction .....	16	17	33	...	...	...	...	2	4	...	...	...	16	17	33
314 Psychoneurotic Disorders .....	5	10	15	...	14	38	19	5	24	45	6	51	7	13	20
320 Pathological Personality .....	1	2	24	2	3	7	3	3	3	...	...	...	88	27	115
321 Immature Personality .....	1	1	9	4	7	76	19	1	20	4	...	4	5	6	11
322 Alcoholism .....	8	1	69	...	...	...	...	...	...	1	...	1	100	9	109
323 Other Drug Addiction .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
324 Primary Childhood Behavior .....	3	5	8	1	...	1	4	7	11	...	...	...	8	12	20
325 Mental Deficiency .....	...	...	...	4	2	6	...	2	...	5	14	19	9	18	27
326 Other and Unspecified Disorders .....	...	...	...	1	1	1	2	...	2	...	...	...	3	...	3
925 General Paralysis of Insane .....	1	...	1	...	...	...	1	...	1	...	...	...	2	...	2
353 Epilepsy .....	...	...	...	2	2	4	4	5	9	...	...	...	6	7	13
688 Puerperal Psychosis .....	...	4	4	...	...	...	...	...	...	...	...	...	...	4	4
793 Observation .....	...	...	...	...	...	...	...	...	...	14	5	19	14	5	19
Total .....	196	240	436	111	41	152	99	66	165	69	31	100	475	378	853

TABLE 6  
DISCHARGES DURING 1959 SHOWING DURATION OF RESIDENCE IN HOSPITAL

PSYCHOSIS	Under 3 mths.			Under 6 mths.			Under 9 mths.			Under 12 mths.			Under 18 mths.			Under 2 years			Over 2 years			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Schizophrenic Disorders	53	46	99	39	49	88	13	14	27	7	9	16	1	11	12	4	6	11	11	22	126	144	270	
Manic Depressive Reaction	11	16	27	3	13	16	...	2	2	...	...	...	...	1	1	...	...	...	1	1	2	15	34	49
Involuntal Melancholia	1	10	11	3	7	10	...	3	3	...	...	...	...	...	...	...	...	...	...	...	4	21	25	
Paranoia and Paranoid States	6	2	8	5	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	11	14	
Senile Psychosis	...	3	3	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	6	15	
Presenile Psocrosis	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
Psychosis with Cerebral Arteriosclerosis	3	7	10	2	2	2	...	2	2	...	...	...	...	1	...	...	...	...	...	...	1	4	16	
Alcoholic Psychosis	14	2	16	2	3	9	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	19	21	
Psychosis Other Demonstrable Etiology	7	3	10	3	6	9	...	...	...	...	2	2	...	2	2	...	...	...	...	...	1	13	25	
Other and Unspecified Psychosis	10	2	12	1	1	2	...	3	3	...	...	...	...	1	1	...	...	...	...	...	1	7	20	
Anxiety Reaction	1	5	6	1	2	2	...	1	1	...	...	...	...	1	1	...	...	...	...	...	1	14	14	
Hysterical Reaction	2	1	3	1	2	3	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2	3	7	
Obsessive-Compulsive Reaction	1	2	3	...	3	3	...	...	...	...	1	1	...	...	...	...	...	...	...	...	4	5	2	
Neurotic-Depressive Reaction	13	10	23	1	5	6	...	1	1	...	...	...	...	1	1	...	...	...	...	...	16	17	33	
Psychoneurotic Disorders	5	8	13	3	3	3	...	2	2	...	...	...	...	1	1	...	...	...	...	...	6	13	19	
Pathological Personality	81	21	102	3	4	7	...	4	1	5	...	...	...	1	1	...	...	...	...	...	1	89	27	
Immature Personality	5	3	8	...	2	2	...	...	...	...	...	...	...	1	1	...	...	...	...	...	5	6	11	
Alcoholism	96	9	105	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	100	9	109	
Other Drug Addiction	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
Primary Childhood Behavior	5	7	12	...	3	3	...	1	2	3	...	...	...	...	1	...	...	...	...	...	1	8	20	
Mental Deficiency	5	15	20	1	2	3	...	2	2	...	...	...	...	1	1	...	...	...	...	...	1	12	27	
Other and Unspecified Disorders	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	3	
General Paralysis of Insane	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Epilepsy	5	4	9	...	2	2	...	1	...	...	...	...	...	1	1	...	...	...	...	...	6	7	13	
Puerperal Psychosis	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	
Observation	14	4	18	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	5	19	
Total	343	184	527	65	108	173	22	32	54	16	14	30	8	18	26	3	6	9	18	16	34	475	378	
														</										

TABLE 7

## DEATHS DURING 1959 BY ABRIDGED INTERNATIONAL STATISTICS CLASS

	Male	Female	Total
1. Tuberculosis of Respiratory System .....	2	....	2
3. Syphilis and Sequelae .....	1	....	1
17. All Other Diseases Classified as Infective and Parasitic.....	....	1	1
18. Malignant Neoplasms .....	3	1	4
19. Benign and Unspecified Neoplasms .....	....	1	1
20. Diabetes Mellitus .....	2	....	2
22. Vascular Lesions Affecting Central Nervous System .....	....	2	2
25. Chronic Rheumatic Heart Disease .....	4	6	10
26. Arteriosclerotic and Degenerative Heart Disease .....	10	3	13
27. Other Disease of Heart .....	2	....	2
28. Hypertension with Heart Disease .....	....	2	2
30. Influenza .....	....	1	1
31. Pneumonia .....	34	3	37
33. Ulcer of Stomach and Duodenum .....	1	....	1
45. Senility Without Mention of Psychosis, Ill-Defined, and Unknown Cause .....	....	1	1
46. All Other Diseases .....	8	5	13
Total .....	67	26	93

TABLE 8

## DEATHS DURING 1959 BY PSYCHOSIS

	Male	Female	Total
300 Schizophrenic Disorders .....	13	6	19
301 Manic Depressive Disorders .....	3	3	6
302 Involutional Melancholia .....	....	1	1
303 Paranoia and Paranoid States .....	4	....	4
304 Senile Psychosis .....	10	5	15
305 Presenile Psychosis .....	1	....	1
306 Psychosis with Cerebral Arteriosclerosis .....	18	9	27
308 Psychosis of Other Demonstrable Etiology .....	5	1	6
309 Other and Unspecified Psychosis .....	6	1	7
325 Mental Deficiency .....	3	....	3
025 General Paralysis of Insane .....	4	....	4
Total .....	67	26	93

## CHRONIC HOSPITALS

### PROVINCIAL AUXILIARY MENTAL HOSPITAL, CLARESHOLM

### PROVINCIAL AUXILIARY MENTAL HOSPITAL, RAYMOND

### ROSEHAVEN, CAMROSE

The patients in the Provincial Auxiliary Mental Hospital, Claresholm, were moved into the newly constructed ward beginning in January. This new ward accommodates 12 additional patients, making the usual patient population 112. Twenty-two mental defectives were transferred from this hospital to Deerhome during the year. Forty patients were transferred from the Provincial Mental Hospital, Ponoka, to Claresholm in the course of the year. By virtue of the opening of the new ward and the transfer of the defectives to Deerhome, general conditions improved greatly. There were five deaths.

The Provincial Auxiliary Mental Hospital, Raymond, continued to care for a female population of 133, more or less. There was little movement of population during the year. Three patients were received by transfer from the Provincial Mental Hospital, Ponoka, and three were admitted directly from the community. There were two deaths.

Rosehaven, Camrose, cared for a daily population of approximately 510 men and women. The average age was over 80. All admissions were by transfer from the Provincial Mental Hospital, Ponoka, and the Provincial Mental Institute, Edmonton. Sixty-six patients (43 men, 23 women) were received from the former, and 54 patients (23 men, 31 women) from the latter. The deaths totalled 113 (63 men, 50 women). During the year leaves-of-absence were granted to some 45 patients.

PROVINCIAL AUXILIARY MENTAL HOSPITAL,  
CLARESHOLM

R. R. MACLEAN, M.D., *Cert. in Neurol., and Psychiatry,*  
F.A.P.A., *Cert. M.H.A. (A.P.A.)*

## MOVEMENT OF PATIENTS

There were 98 patients in residence January 1, 1959, and there were 106 patients in residence December 31, 1959.

Forty patients were transferred to this hospital from the Provincial Mental Hospital, Ponoka.

Twenty-two patients were transferred from this hospital. Twenty-one patients were transferred to Deerhome, Red Deer. These were patients who were mentally deficient. One patient was transferred to the Provincial Mental Hospital, Ponoka, for medical reasons.

Three patients were discharged during the year.

There were five deaths during the year.

## NEW BUILDINGS

The patients were transferred from the old ward to a newly constructed ward January 3, 1959. At present the old building is being used for the occupational therapy, and sewing room work.

The new ward has bright airy rooms and the colour schemes are very attractive. The building is all on one floor and the infirm and elderly patients do not have to climb stairs to get to their dormitories.

## ACCIDENTS AND ELOPEMENTS

There were no elopements or accidents during the year.

## GENERAL HEALTH

The necessary X-Ray and laboratory tests were done at the Municipal Hospital. A local physician made regular visits, and his interest has been greatly appreciated. The general health of the patients has been good.

## OCCUPATIONAL DEPARTMENT

The Occupational Department maintained its high standard of work. The finished articles were sold to local residents throughout the year.

One ward aide was assigned to the deteriorated patients on the ward, and has encouraged them to do simple tasks, or some needle work, jig saw puzzles, or make scrap books.

A ward aide took a special group out to the garden and these patients enjoyed this form of occupation very much.



## RECREATIONAL ACTIVITIES

Parties were held for Valentine's, Easter, Hallowe'en, and Christmas. Bingo, cards, and dancing were enjoyed by the patients. Sports day was held with the usual races, ball game, and outdoor lunch, and was enjoyed by all.

Christmas parties held during the festive season were enjoyed. The Carolers from town sang for the patients, which was enjoyed. Residents from town, and the staff drove the patients around to see the Christmas lights. Lunch was served after this outing.

The United Church Choir, and the Salvation Army visited the hospital. These visits were greatly enjoyed.

Gifts were received at Christmas from several groups, and helped make a happy time for the patients. A group from Granum, "adopted", eighteen patients, and have been sending them birthday cards and other gifts.

The Callow Coach from Lethbridge took the patients out every second week from June to October, weather permitting. These trips were greatly enjoyed by the patients. Following the drives local organizations entertained the patients for lunch.

The patients held a tea for representatives from each organization that had entertained them. This was very successful.

A group of ladies from town served a turkey dinner for eight patients, which was enjoyed; one resident served tea on several occasions.

Films were shown every week during the winter. Most of the patients attended these shows.

During the winter the patients went for daily walks, weather permitting. In the summer months all the patients were allowed out on the lawns twice a day.

## BEAUTY PARLOUR

Many of the patients had their hair done regularly by the ward staff, and have been given permanents.

## RELIGIOUS SERVICES

Local clergymen conducted services each Sunday afternoon. Roman Catholic services were conducted once a month.

## DENTISTRY

The Dentist, from the Provincial Mental Hospital, Ponoka, visited the hospital in June and gave the necessary dental care. Emergency dental work was done by the local dentist.

## FIRE PROTECTION

The buildings have been inspected by the fire inspector. Fire practices were held and equipment checked regularly.

## BUILDINGS

The maintenance staff have made the necessary repairs to the buildings and equipment.

## GARDENS AND GROUNDS

The vegetable crop was good.

## VISITORS

The Visiting Board visited the hospital in October.

Dr. R. R. MacLean, Director, Division of Mental Health, visited the hospital several times and his help and advice were greatly appreciated.

Relatives and friends visited the patients during the year.

TABLE 1  
MOVEMENT OF PATIENT POPULATION DURING 1959

	M	F	T	M	F	T
In Residence January 1, 1959 .....	....	....	....	....	98	98
On leave or otherwise absent .....	....	....	....	....	2	2
ADMISSIONS:						
FIRST ADMISSIONS:						
(a) Voluntary .....	....	....	....	....	....	....
(b) Certificate .....	....	....	....	....	....	....
(c) Warrant .....	....	....	....	....	....	....
(d) M. D. Act .....	....	....	....	....	....	....
RE-ADMISSIONS:						
(a) Voluntary .....	....	....	....	....	....	....
(b) Certificate .....	....	....	....	....	....	....
(c) Warrant .....	....	....	....	....	....	....
(d) M. D. Act .....	....	....	....	....	....	....
Transfers .....	....	40	40	....	40	40
Total Admissions .....	....	40	40	....	140	140
SEPARATIONS:						
DISCHARGES:						
(a) As Recovered .....	....	....	....	....	....	....
(b) As Improved .....	....	3	3	....	3	3
(c) As Unimproved .....	....	3	3	....	3	3
Total Discharges .....	....	22	22	....	22	22
Transfers .....	....	5	5	....	5	5
Deaths .....	....	5	5	....	5	5
Total Separations .....	....	....	....	....	30	30
On leave or otherwise absent .....	....	....	....	....	110	110
In Residence December 31, 1959 .....	....	....	....	....	4	4
	....	....	....	....	106	106

TABLE 2  
ORIGINAL DIAGNOSIS ON ADMISSION TO MENTAL HOSPITAL

	Male	Female	Total
03 Psychoses with Epidemic Encephalitis .....	....	2	2
08 Psychoses with Cerebral Arteriosclerosis .....	....	2	2
11 (a) Pre-Senile Psychoses .....	....	1	1
16 Psychoneuroses .....	....	1	1
17 Manic-Depressive Psychoses .....	....	4	4
18 Dementia Praecox (Schizophrenia) .....	....	75	75
19 Paranoia and Paranoid Conditions .....	....	9	9
21 Psychoses with Mental Deficiency .....	....	5	5
23 Without Psychoses .....	....	3	3
12 Involutional Psychoses .....	....	1	1
05 Alcoholic Psychoses .....	....	2	2
10 Psychosis with Convulsive Disorder .....	....	1	1
01 General Paresis .....	....	2	2
123 Tabo-Paresis .....	....	1	1
309.2 Undiagnosed Psychosis .....	....	1	1
	....	110	110

TABLE 3  
CAUSES OF DEATH DURING 1959  
ABRIDGED INTERNATIONAL CLASSIFICATION

DISEASE	Male	Female	Total
31 Pneumonia .....	.....	1	1
27 Other Diseases of Heart .....	.....	2	2
22 Vascular Diseases of Central Nervous System .....	.....	1	1
32 Bronchitis .....	.....	1	1
Total .....	.....	5	5

TABLE 4  
CLASSIFICATION OF DEATHS ACCORDING TO ORIGINAL PSYCHIATRIC  
DIAGNOSIS—1959

DISEASE	Male	Female	Total
Pre-senile Psychosis .....	.....	1	1
Dementia Praecox—Catatonic .....	.....	1	1
Psychosis with Convulsive Disorder—Idiopathic Epilepsy .....	.....	1	1
Paranoia and Paranoid Conditions—Paraphrenia .....	.....	1	1
Dementia Praecox—(Hebephrenic) .....	.....	1	1
Total .....	.....	5	5

PROVINCIAL AUXILIARY MENTAL HOSPITAL  
RAYMOND

R. R. MACLEAN, M.D., *Cert. in Neurol. and Psychiatry*,  
F.A.P.A., *Cert. M.H.A. (A.P.A.)*

## MOVEMENT OF PATIENTS

On January first, 1959, there were 132 patients in residence. During the year there were three admissions and three patients received from the Provincial Mental Hospital, Ponoka. There were two deaths and two patients permitted home on parole leaving a total of 136 patients, (134 in residence and two on parole), as of December 31, 1959.

## ACCIDENTS AND ELOPEMENTS

There were no elopements and no accidents except of a minor nature.

## GENERAL HEALTH

The annual booster inoculation against Typhoid Fever was given to patients and staff in the spring. During the summer months the staff were given two inoculations of Salk Vaccine. Two patients developed malignant tumors which were removed by surgery. The dentist made his annual visit and cared for all the patients' teeth, three receiving new dentures. Emergency dental care was handled by the local dentist. A clinic of four Medical Doctors in the town of Raymond was on call, as was a Psychiatrist from Lethbridge. All patients were given a complete physical examination.

## OCCUPATIONAL THERAPY

Patients were occupied in the laundry, sewing room, kitchen, Nurses' Home and in the wards and dormitories. A few patients helped to pick vegetables in the garden and one patient had the responsibility of gathering the eggs. There was a full time attendance by other patients in the Occupational Parlor where all kinds of needlework, knitting, rag rug making and darning was done. Tea was served each afternoon and a radio provided entertainment.

## LIBRARY

The patients' library was situated in the Occupational Parlor which was also used as a reading room. One new book was added each month. The Raymond Town Library donated several magazines bound in five year lots, which proved most interesting and entertaining. Current issues of many popular magazines were provided through subscriptions or donations from local friends.

## RELIGIOUS SERVICES

Both Catholic and United Church services were held at the hospital once monthly. These clergymen also presided at patients' funerals when required to do so.

### RECREATION AND ENTERTAINMENT

The patients were delighted with the initiation of a monthly "Birthday Party" by the Lethbridge Ladies' Auxiliary to the Federation of Civic Employees. Each month these ladies brought a beautifully decorated birthday cake, cookies, a gift and card for each patient whose birthday fell in that month, and entertained them at tea. A new television set was purchased for the Annex which relieved the crowding in the main ward. The Callow Coach made weekly calls from early spring to late fall, taking patients for afternoon trips to nearby towns and beauty spots. Picture shows were shown on the ward once weekly during the winter months and bi-monthly in the spring and fall. The annual Sports Day was held and picnic suppers were served on the lawns. Several Chapters of the Independent Order Daughters of Empire and several United Farm Women's Associations from the various districts, the Lethbridge Mental Health Association and other community groups donated jewellery, clothing, home baking and money for treats. The Calgary Women's Auxiliary to retired Royal Canadian Mounted Police donated and mailed a Christmas parcel to each patient who habitually does not receive one from home or relations.

Special holidays were celebrated with a dance, concert or party. There was a radio and piano on the ward and also in the Annex sitting room.

### STAFF CHANGES

The Public Health staff were granted the 40-hour work week requiring one ward aide and one kitchen maid being added to the staff complement. One member of the Public Works Boiler Room staff reached retirement age and this vacancy was satisfactorily filled.

### VISITORS

Periodic visits of inspection were made by the Department of Public Health, Public Works, Fire Department and Fire Inspector, Electrical and Boiler Inspectors. The Director of the Division of Mental Health made several visits and the Provincial Visiting Board made its annual visit.

### GARDENS AND GROUNDS

The vegetable gardens provided fresh vegetables all summer but needed considerable irrigation. The early killing frost in the fall destroyed much of the potato crop but did little damage to other winter vegetables. The lawns and flower beds were beautifully kept and as new beds for cut flowers were planted, the wards were abundantly supplied with bouquets. The hospital grounds were very attractive and many visitors commented pleasurably.

### CONCLUSION

The general health of the patients was satisfactory and the hospital capacity was maintained.



## DEPARTMENT OF PUBLIC HEALTH

TABLE 1  
MOVEMENT OF PATIENT POPULATION DURING 1959

	M	F	T	M	F	T
In Residence January 1, 1959 .....				....	132	132
ADMISSIONS:						
(a) Voluntary .....	....	1	1			
(b) Certificates .....	....	2	2			
(c) Warrant .....	....	....	....			
(d) Order .....	....	....	....			
(e) Transfer .....	....	3	3	....	6	6
				....	138	138
RE-ADMISSIONS .....	....	....	....	....	....	....
SEPARATIONS:						
(a) As recovered .....	....	....	....			
(b) As improved .....	....	....	....			
(c) As unimproved .....	....	....	....			
(d) Transferred to other hospitals .....	....	....	....			
(e) Eloped .....	....	....	....			
(f) Deported .....	....	....	....			
(g) As with Psychosis .....	....	....	....			
(h) Deaths .....	....	2	2	....	2	2
				....	136	136
In Residence December 31, 1959 .....				....	136	136

TABLE 2  
ORIGINAL DIAGNOSIS ON ADMISSION TO MENTAL HOSPITAL

	Male	Female	Total
300 Schizophrenic Disorders .....	....	78	78
301 Manic-Depressive Reactions .....	....	7	7
303 Paranoia and Paranoid States .....	....	11	11
304 Senile Psychosis .....	....	7	7
306 Psychosis with Arteriosclerosis .....	....	1	1
307 Alcoholic Psychosis—Chronic Alcoholic Hallucinations .....	....	1	1
308 Psychosis with other demonstrable Etiology (Epilepsy) .....	....	3	3
309 Other and Unspecified Psychosis .....	....	7	7
325 Mental Deficiency .....	....	19	19
326 Not Psychotic—Mental Deficiency with Psychoneurosis .....	....	1	1
025 General Paresis of Insane .....	....	1	1
Total .....	....	136	136

TABLE 3  
CAUSES OF DEATH DURING 1959  
ABRIDGED INTERNATIONAL CLASSIFICATION

CLASSIFICATION	Male	Female	Total
27 Disease of the Heart .....	....	1	1
31 Pneumonia .....	....	1	1
Total .....	....	2	2

TABLE 4  
DEATHS BY ORIGINAL DIAGNOSIS

	Male	Female	Total
301 Manic-Depressive Reactions .....	....	1	1
308 Psychosis with Other Demonstrable Etiology (Epilepsy) .....	....	1	1
Total .....	....	2	2

## ROSEHAVEN, CAMROSE

R. R. MACLEAN, M.D., *Cert. in Neurol. and Psychiatry,*  
F.A.P.A., *Cert. M.H.A. (A.P.A.)*

## MOVEMENT OF RESIDENTS

On January 1, 1959, the resident population at Rosehaven numbered 495, of which 281 were men and 214 were women. The total number in residence on December 31, 1959, was 503; 282 men and 221 women.

There were 168 residents admitted to Rosehaven during 1959. Of this number, 66 were received from the Provincial Mental Hospital at Ponoka, 54 from the Provincial Mental Institute at Edmonton, one was readmitted and 47 returned from leave of absence.

Separations from Rosehaven during 1959 numbered 170, 113 attributable to death, two were transferred to other mental institutions and 55 went on leave of absence.

Admissions throughout the year were in the form of transfers from other mental hospitals in Alberta and filled beds made available by death or discharge. The average daily population was 503.5.

Deaths were due to degenerative causes.

## ACCIDENTS AND ELOPEMENTS

During the year a number of residents received injuries either from accidental falls or as a result of interference from other residents. Some of these resulted in contusions and lacerations of a minor nature and required only first aid treatment. There were 55 accidents which required medical care or X-ray investigation. These included 31 fractures, four dislocations, 14 X-ray investigations, three severe contusions and three suturings. Two residents left the grounds without permission and were returned by relatives or staff members.

## GENERAL HEALTH

The general health of the residents was considered good in view of the age of the individuals. An increasing mental and physical decline in the majority of residents necessitated an increased amount of nursing care.

An average of 37.5 residents required bed care each day. During the year, 43 residents were admitted to St. Mary's Hospital for medical, surgical or orthopedic attention. Out-patient work done at St. Mary's Hospital for Rosehaven residents consisted of 146 laboratory procedures, 57 X-ray pictures and five electrocardiograms. 22 specimens were sent to the Provincial Laboratory. Nine residents attended the Tuberculosis Clinic for chest X-ray and examinations.

Medical care was supplied by the Smith Clinic of Camrose.

Dental care was given by the dentist from the Provincial Mental Institute, Edmonton. Emergency dental work was done by a local dentist.

## OCCUPATIONAL THERAPY

Occupational therapy classes were operated throughout the year. Groups of men and women from each ward attended with an average of 58 residents at classes twice a week. A successful bazaar was held in November and the articles made by the residents sold readily. An average of 13 residents worked in institutional services; laundry, kitchen and garden. The average number employed on wards in light housekeeping tasks was 70.

## RELIGIOUS SERVICES

Weekly Protestant Church services were held at Rosenhaven and arranged by the local Ministerial Association. An average of 125 residents attended each Sunday. Roman Catholic services were held several times during the year.

## RECREATION

Walking parties and lawn groups were taken out when weather permitted. An average of 125 residents had grounds privileges and were out almost daily. A movie film was shown once every two weeks from September to May with an average attendance of 140 residents. Parties in the form of bingo, tea dances and cards were arranged each month as well as special entertainment at Christmas, Easter and Thanksgiving holidays. Several picnic outings were arranged in the summer months. Cards, games, television and radios were available to residents. Several local organizations and church groups sponsored car rides, concerts and teas for the residents. Ex-servicemen were visited regularly by members of the Ladies' Auxiliary to the Canadian Legion who arranged outings for them. An increased interest in the residents was shown by outside groups.

## BUILDINGS

The buildings have been well maintained and repairs were done promptly.

## GARDEN AND GROUNDS

The garden and grounds were well maintained during the year.

## STAFF

The general health of the staff was good. Vacancies arising from resignations were readily filled. All staff members received T.A.B. vaccine and the majority received Salk vaccine.

## VISITORS

Regular visits were made to Rosehaven by the Director of Mental Health.

The annual visit was made by the Visiting Board.

TABLE 1  
MOVEMENT OF POPULATION DURING 1959

	M	F	T	M	F	T
In Residence December 31, 1958 .....				281	214	495
ADMISSIONS:						
From P.M.H., Ponoka .....	43	23	66			
From P.M.I., Edmonton .....	23	31	54			
Readmitted .....	1	...	1			
Returned from L.O.A. ....	10	37	47			
	77	91	168	77	91	168
				358	305	663
SEPARATIONS:						
Deaths .....	63	50	113			
Discharge to P.M.I. ....	...	1	1			
Discharge to P.M.H. ....	1	...	1			
On L.O.A. ....	12	33	45			
	76	84	160	76	84	160
In Residence December 31, 1959 .....				282	221	503

TABLE 2  
ORIGINAL DIAGNOSIS ON ADMISSION TO MENTAL HOSPITALS

300 Schizophrenic Disorders .....	111
301 Manic Depressive Reaction .....	25
302 Involutional Psychosis .....	2
303 Paranoia and Paranoid States .....	33
304 Senile Psychosis .....	164
305 Presenile Psychosis .....	1
306 Psychosis with Arteriosclerosis .....	112
307 Alcoholic Psychosis .....	2
308 Psychosis of Demonstrable Etiology .....	9
309 Other and Unspecified Psychosis .....	15
311 Hysterical Reaction .....	1
320 Pathological Personality .....	1
321 Immature Personality .....	1
322 Alcoholism .....	5
323 Other Drug Addiction .....	1
325 Mental Deficiency .....	7
024 Tabes Dorsalis .....	3
025 General Paralysis of Insane .....	5
026 Other Syphilis of Central Nervous System .....	3
930 Not Psychotic .....	2
Total .....	503

TABLE 3  
CAUSES OF DEATH DURING 1959  
ABRIDGED INTERNATIONAL CLASSIFICATION

DISEASE	Male	Female	Total
17. All other diseases classified as Infective and Parasitic .....	1	...	1
18. Neoplasms, Malignant .....	4	2	6
20. Diabetes Mellitus .....	1	...	1
22. Vascular Disease of Central Nervous System .....	3	7	10
26. Arteriosclerotic and Degenerative Heart Disease .....	15	6	21
31. Pneumonia .....	37	33	70
35. Intestinal Obstruction .....	...	1	1
38. Nephritis—Nephrosis .....	1	...	1
46. All other diseases .....	1	1	2
Total .....	63	50	113

TABLE 4  
CLASSIFICATION OF DEATHS ACCORDING TO ORIGINAL PSYCHIATRIC  
DIAGNOSIS—1959

DISEASE	Male	Female	Total
300 Schizophrenic Disorders: Catatonic .....	1	1	2
Paranoid .....	4	...	4
301 Manic Depressive Reaction .....	1	3	4
303 Paranoia and Paranoid States .....	3	1	4
304 Senile Psychosis .....	28	31	59
306 Psychosis with Arteriosclerosis .....	19	10	29
308 Psychosis with Demonstrable Etiology .....	1	1	2
309 Other and Unspecified Psychosis .....	1	...	1
322 Alcoholism .....	...	1	1
325 Mental Deficiency .....	1	1	2
025 General Paralysis of Insane .....	1	1	2
930 Not Psychotic .....	3	...	3
Totals .....	63	50	113

## INSTITUTIONS FOR MENTAL DEFECTIVES

### THE PROVINCIAL TRAINING SCHOOL, RED DEER

#### DEERHOME, RED DEER

The Provincial Training School's population decreased from 758 to 734 during the year, by virtue of transfers of patients to Deerhome. There were 71 (39 men, 32 women) transfers to Deerhome. There were 69 (48 male, 21 female) new admissions to the Training School. There were 11 deaths. The training program was maintained at a high standard of efficiency. There were 27 (11 male, 16 female) discharges.

The population of Deerhome increased from 335 (175 male, 160 female) to 675 (238 male, 437 female). Two hundred and thirty-six women were received from the Provincial Mental Hospital, Ponoka, 71 (39 men, 32 women) were received from the Provincial Training School, Red Deer, 26 (20 men, 6 women) from the Provincial Mental Institute, Edmonton, 21 women from the Provincial Auxiliary Mental Hospital, Claresholm, and 23 (12 men, 11 women) were admitted directly from the community. There were 10 (4 male, 6 female) discharges, and a large number of leaves-of-absence (223) granted. There were four deaths, all females.

Despite the fact that this institution was called on to care for some 200 psychotic women patients from the Provincial Mental Hospital, Ponoka, temporarily, it functioned very well in its dual capacity.

Two new dormitories, one the Infirmary, were opened and occupied and construction of women's staff quarters, an administration building, and a Public Works service building was commenced.



PROVINCIAL TRAINING SCHOOL,  
RED DEER

L. J. LE VANN, L.R.C.P. *Edin.* L.R.C.S. *Edin.* L.R.F.P.S. *Glas.*,  
*Medical Superintendent*

## IN RESIDENCE, ADMISSIONS, DISCHARGES, DEATHS

Patient days this year totalled 277,260, the greatest number of trainees being in residence, 767.

69 new admissions were effected during the year, 48 males and 21 females. There were 15 readmissions and three transfers from Deerhome, two for surgery and one for the purpose of bed nursing.

Facilities were made by the Director of the Division of Mental Health to transfer a total of 73 patients, of the chronic custodial type, to Deerhome. These consisted of 33 females and 40 males. This relieved some of the urgent waiting list of the lower grade patients who present considerable difficulty in being cared for amongst the normal population.

27 patients were discharged to return to the community as partially or as wholly self-sustaining workers. There were 11 males and 16 females.

There were 11 deaths during the year, the major causes of death being cardio-vascular disease and respiratory infections.

## APPLICATIONS FOR ADMISSION

171 new applications were received, again, predominantly lower grade patients. Of this list 17 were admitted on the basis of urgency.

## EUGENICS BOARD VISITS, STERILIZATIONS, ETCETRA

The School was visited by the Eugenics Board on four occasions and 34 cases were presented. One patient was deferred and one patient was presented on behalf of the Deerhome Institution. In conformity with the Board's recommendations, 36 defective persons were sterilized, 33 from the Provincial Training School, two from Deerhome and one from Calgary. Of these, 19 were males and 17 females. 12 appendectomies were performed in relation to eugenics surgery and four miscellaneous surgical procedures carried out.

## STAFF CHANGES AND ACTIVITIES

The staff picture was very healthy. There was no staff shortage and when vacancies occurred they were filled fairly readily at all levels, excepting, Medical Staff, Psychologist and Social Workers who continued to be in great demand and short supply.

## HEALTH OF TRAINEES AND STAFF

The health of the School population and staff continued at a high level. Prophylactic medical measures continued this year as previous years, mainly, immunizations against polio-

myelitis, diphtheria, whooping cough and the enteric fevers. The mass X-ray survey of the School was carried out by the Alberta Tuberculosis Association and no cases of Tuberculosis were discovered in either patients or staff.

#### TRAINING PROGRAM FOR NURSES AND ATTENDANTS

This was continued as during the previous year, maintaining a high standard. During the years the study requirements were raised, yet despite this, considerable enthusiasm was shown by the augmented number of Attendants and Nurses taking classes leading to the Mental Deficiency Graduates' Diploma. 114 students were enrolled in the nursing course during the year.

#### TRAINING PROGRAM FOR TRAINEES

With minor variations, the training program was much like last year's, with the greatest emphasis being placed on studying the needs of each individual, his capabilities and how they might best be utilized to prepare him for discharge as a self-sustaining member of the community.

116 pupils attended academic classes during the year. Nine of these reached their peak of scholastic achievement and were graduated to full-time occupational and vocational training activities. Good progress was generally made by most of the children and 58 promotions to more senior classes were made in June.

The educational program included many field trips to areas in the community which included monthly shopping trips by the senior classes. Special efforts were made to give the trainees a better understanding of money and its purchasing value, by permitting them to make their personal purchases in the shops in Red Deer.

Traffic safety features were taught, such as the recognition of street signs, rules for pedestrians and in addition, the constant stress on the need for good behavior, courtesy and consideration for others.

The highlight of the school year was the performance of a play of approximately one hour's duration on the local T.V. station. There was favorable response from the public on the high level of performance and approval that retarded children could be trained to such a level of proficiency.

#### SENSE TRAINING

71 children attended Sense Training Classes for periods of approximately one to one and a half hours per day. The program here concerned itself mainly with teaching the children co-ordination, socialization, appreciation of rhythm, color distinction and practical living techniques, such as a simple courtesy, personal tidiness and cleanliness. 11 children were promoted from a junior to a senior sense training level.

#### RECREATIONAL ACTIVITIES

175 children attended recreational classes daily. The work of the Recreational department was made considerably easier

by the addition of new equipment, such as gym mats, swings and slides. 26 pairs of skates were also purchased for ice-hockey and skating.

The holiday festivities for recreation included Valentine's, St. Patrick's, Easter, Hallowe'en, Thanksgiving, Remembrance Day, Christmas and New Year's parties.

During Christmas week various groups of children were taken downtown around the city area to see the Christmas trees, lights and decorations.

Cinema performances were held during the fall and winter months and during the summer, one picture show was given each month for trainees who were unable to go home for various reasons.

Amongst the athletic activities there were broom ball, skating, sleigh riding and skiing, and during the summer baseball and football. Also during the summer months there were several weiner roasts, track and field events. 183 trainees attended the Red Deer Fair.

Arrangements were made with the City to give the School the facility of the City Swimming Pool and 30 children at a time attended swimming classes twice a week during June, July and August. Nine of these children completed their "Red Cross Safety Beginners' Water Test".

#### AGRICULTURAL ACTIVITIES

Agricultural instruction classes included 29 boys. In essence, training was directed towards giving the boys attending, the practical background of farm procedures and practices. Special attention was paid towards instructing the boys what must not be done and dangers to be avoided in relation to working with farm equipment.

During the summer months, the agricultural class followed the normal work pattern associated with summer work and during the fall were involved in harvesting procedures. The boys were taken to the Red Deer Hatchery and Farm Implement Shows to give them an opportunity to see aspects of agricultural activities not available at the School.

They were also instructed in preparing animals for agricultural shows and five purebred cows were entered in the Red Deer Show, entirely prepared by the trainees.

#### OCCUPATIONAL THERAPY

201 trainees attended the Occupational Therapy Department during the year, of which 53 were new members to classes. The average daily attendance was 110 children.

During the summer it was possible to enlarge the cooking classes and considerable proficiency was attained by 12 trainees who were able to prepare an entire meal without assistance. New classes in dressmaking were begun and many of the trainees made at least one garment for themselves. This was in conjunction with first visiting downtown to the dry goods shops

to choose a pattern and material. The trainees developed considerable proficiency in the use of sewing machines, both of the electrical and foot pedal variety. Two new sewing machines were purchased to enable larger groups to work simultaneously.

Handicrafts were also utilized by the department which included needlework, embroidery, basketry, rug-making, weaving, crocheting, knitting, toy making, raffia work, netting and knotting. At the end of July a number of articles were entered in the handicraft section of the Red Deer Fair and 14 prizes of first, second and third calibre were won, 11 in the adult and three in the junior classes.

#### VOCATIONAL TRAINING DEPARTMENT

It was possible to employ an Assistant Vocational Training Instructor with special training in carpentry and 48 boys received instruction in carpentry procedures. A new Planer with Motor was purchased during the year to achieve a higher standard of furniture making in which the trainees have become quite proficient. Additional practical training was given them at the Randall R. MacLean Cottages at Gull Lake, where they constructed a new septic tank.

All the prizes for wood turning at the Red Deer Fair were won by the trainees of the Training School. A large float entered in the Red Deer 75th Anniversary Commemoration Parade won an honorable mention.

Items made in vocational training included such things as nut bowls, lamps, tables, coffee tables, bird houses, end tables, hostess chairs, and a wide variety of garden furniture.

#### SHOEMAKING

The Shoemaker and some physically handicapped children continued to make all the necessary repairs on shoes for the Training School and the Deerhome Institution. It was possible through this service to give an incentive for activity to boys who might normally have had no other occupation.

#### EXTRA MURAL ACTIVITIES

During the year 123 children went home for Easter holidays, 235 went home for their summer holidays and 203 children went home for Christmas holidays.

The Teachers for Retarded Children in the Province of Alberta had their annual meeting at the Provincial Training School where the School demonstrated in teaching programs and workshop sessions effective methods in working with retarded children. Attending outside teachers were thus given the opportunity to view the wide horizons of teaching possible for retarded children.

The Parent School Organization augmented its membership and continued to be a useful and interested group devoted to the welfare of the trainees at the School.

A special TV program was held, in which members of the Training School staff presented the activities of the Nursing Staff



and Male Attendant Staff in relation to nursing retarded children and pointing out the interest and advantages of such a career.

### SPECIAL TALKS AND PUBLIC RELATIONS

Senior staff participated in many meetings consisting of Home and School Associations, Service Clubs, Women's Institutes, in which talks on Mental Health, Mental Deficiency and "Choosing a Career", were involved. A total of 14 such talks and meetings was given.

### NEW CONSTRUCTION

New construction consisted of a new Sense Training Building, giving four additional rooms which allowed further amplification of sense training activities, a 24-room addition to Male Staff Quarters, a Vocational Training and Occupational Therapy Building and necessary Ward renovation for the setting up of the Pilot Study for Emotionally Disturbed Children, Linden House.

### STORES

The stores operation was improved by changing to a bin card system of perpetual inventory control. Also, the over-all stores inventory was increased by approximately 20% over the previous year. This made it possible to have items on hand at all times so that they were available when required; thus providing better service to the School.

More ready made items of clothing were added to the inventory; thus relieving the Linen Repair Room of some of their manufacturing work. The store facilities were quite adequate.

### KITCHEN AND DINING ROOM

This department supplied well balanced diet to both trainees and staff members. Because the position of Dietitian was still vacant, the duties of this position have been carried out by the Chef and his Assistant.

Working conditions in the Kitchen were somewhat cramped due to the large increase of patients to the School. Arrangements were made for replacement of the old gas ranges and several steam kettles, which were beyond repair.

### LAUNDRY AND LINEN REPAIR

The laundry was made generally more efficient by the complete renovation of all high pressure steam lines. A new set of steam presses was also installed. This improved the drying time of the tumblers, and enabled the mangle to be speeded up. Whereas last year it was necessary to send as much as 4,000 pounds of laundry to the Deerhome laundry daily, the greater laundry change-over reduced this by some 2,000 pounds per day. Facilities were made for Laundry Staff members to attend a technical school for "Wash Floor Operators".

The Linen Repair Room functioned satisfactorily and mended linens and as well personal trainee clothing. Some articles of



clothing were also manufactured, but less than last year, since it was found that many linen items could be purchased on a tender basis just as economically, if not more so, than buying bolts of cloth and having the clothing item manufactured locally.

Two of the older obsolete sewing machines were replaced with new tailor model machines.

### FARM

The cereal crop acreage was not as great as last year due to relinquishing a large area of arable land to the Deerhome Institution. The grain crop was further diminished by extensive hail in July. Although the premature snow during the harvest season created difficulties in harvesting, the crop nearly all was harvested before the end of the year. Hay crops yielded fairly well on first cuttings. The second cut of hay crop was fairly light and could not be taken off in good condition due to unfavorable weather.

The milk yield was somewhat lower, due to the fact that some of the cows were considerably past their best milk production and could, with advantage, be culled.

The poultry flock was replaced with a special pedigree type of hybrids and the egg production was up to nearly 80% for this group of birds. The farm staff also provided all the necessary tractor and farm machinery work for the Deerhome Institution.

### GARDEN AND GROUNDS

Hail caused some damage to the potato and vegetable crops, although the yield was in excess of what was anticipated. The harvested potato crop will provide the school with adequate potatoes until next year's crop becomes available.

Additional areas around new buildings were landscaped, partially by contract and partially by the School's garden staff.

An additional lean-to area at the Greenhouse was erected by the Vocational Training class in the spring.

Approximately half of the streets in the School were paved and a new parking area was paved immediately west of the Recreational Hall.

### GARBAGE DISPOSAL

Garbage disposal was felt to be somewhat inefficient due to the fact that the dry garbage was collected, placed in the farm truck and driven to the City Dump, two or three times a day. However, the plans for building an incinerator on the school grounds made considerable progress and it was anticipated that this travelling time used in disposal of garbage would be eliminated shortly.

### VISITORS

Visitors to the School consisted of the Honorable Dr. J. Donovan Ross, who visited on several occasions, the Director of the Division of Mental Health, Dr. Randall R. MacLean and the

Deputy and Assistant Deputy Ministers of Health. The School was also visited by medical students in their fourth year of Medicine from the University of Alberta, Guidance Clinic personnel and members of University staffs from various areas in Canada.

### WARDS

General maintenance was carried out on all Wards and Buildings as required by the Service Departments under the direction of the Maintenance Foreman.

### FIRE SERVICE

The fire brigade consisting of 23 men was available on a twenty-four hour duty system.

Fire fighting equipment was maintained and a Simese Coupling was added which enables water to be taken directly from the tank house for use within the farm area.

The School brigade participated in Fire Prevention Week with the City Fire Department during the month of October.

The services of the brigade were called upon by the Deerhome Institution on three occasions.

During the year inspections were carried out by the Fire Commission Staff and the City Fire Inspector, of all equipment.

### APPRECIATION

The Medical Superintendent would like to express his deep appreciation to the Honorable Dr. J. Donovan Ross, Minister of Health, and Dr. Randall R. MacLean, Director, Division of Mental Health, for all the help and encouragement given to maintain the high standards of care extant at the School. He would also like to thank all the members of his staff who worked so assiduously in maintaining the well being of the trainees and devotion towards their work.

TABLE 1

#### MOVEMENT OF FEEBLEMINDED POPULATION

	M	F	T	M	F	T
Defectives on books of Institution as at 1st January, 1959 .....				402	356	758
ADMISSIONS:						
1. First Admissions—Voluntary .....	48	21	69			
2. Re-admissions .....	8	7	15			
3. Transfers—1 from Deerhome .....	1	1	1			
2 from Deerhome for Surgery..	1	1	2			
Total number of admissions .....	57	30	87	57	30	87
Total number of Defectives on the books during 1959 .....				459	386	845
SEPARATIONS:						
1. Discharges .....	11	16	27			
2. Transfers—33 F. to Deerhome .....						
40 M. to Deerhome .....	40	33	73			
3. Deaths .....	5	6	11			
Total number of separations .....	56	55	111	56	55	111
Defectives on books of the Institution at 31st December, 1959 .....				403	331	734

TABLE 2  
AGE OF RESIDENT POPULATION CLASSIFIED WITH REFERENCE TO MENTAL STATUS

AGE GROUP	IDIOT			IMBECILE			MORON			BORDERLINE			TOTALS		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0-4	12	10	22	36	30	66	6	6	12	6	3	9	54	40	94
5-9	18	11	29	69	45	114	58	36	94	6	3	9	151	95	246
10-14	21	19	40	50	34	84	33	35	68	1	1	1	104	89	193
15-19	14	11	25	24	24	48	6	8	14	1	1	1	44	43	87
20-24	11	1	12	13	13	26	1	5	6	1	1	1	20	19	39
25-29	11	4	15	10	10	20	1	2	3	1	1	1	12	16	28
30-34	6	2	8	4	4	8	1	1	2	1	1	1	9	4	13
35-39	5	4	9	3	6	9	1	1	2	1	1	1	4	4	8
40-44	1	2	3	3	2	5	1	1	2	1	1	1	3	5	8
45-49	1	1	2	1	5	6	1	1	2	1	1	1	1	6	7
50-54	1	1	2	1	1	2	1	1	2	1	1	1	1	1	3
55-59	1	1	2	1	1	2	1	1	2	1	1	1	1	1	3
60-64	1	1	2	1	1	2	1	1	2	1	1	1	1	1	3
Totals	90	66	156	199	173	372	107	88	195	7	4	11	408	331	739

TABLE 3  
MENTAL STATUS OF FIRST ADMISSIONS, READMISSIONS AND TRANSFERS

Mental Status	First Admissions			Readmissions			Transfers			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T
Idiot .....	10	5	15	....	....	....	....	....	....	10	5	15
Imbecile .....	21	13	34	4	2	6	1	2	3	26	17	43
Moron .....	16	3	19	4	5	9	....	....	....	20	8	28
Borderline .....	1	....	1	....	....	....	....	....	....	1	....	1
Totals .....	48	21	69	8	7	15	1	2	3	57	30	87

TABLE 4  
AGE GROUP OF FIRST ADMISSIONS, READMISSIONS AND TRANSFERS

Age Group	First Admissions			Readmissions			Transfers			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T
5-9 .....	20	9	29	1	....	1	....	....	....	21	9	30
10-14 .....	23	10	33	1	....	1	....	....	....	24	10	34
15-19 .....	5	2	7	1	2	3	1	....	1	7	4	11
20-24 .....	....	....	....	....	1	1	....	....	....	....	1	1
25-29 .....	....	....	....	5	2	7	....	1	1	5	3	8
30-34 .....	....	....	....	....	1	1	....	1	1	....	2	2
35-39 .....	....	....	....	....	....	....	....	....	....	....	....	....
40-44 .....	....	....	....	....	....	....	....	....	....	....	....	....
45-49 .....	....	....	....	....	1	1	....	....	....	....	1	1
Totals .....	48	21	69	8	7	15	1	2	3	57	30	87

TABLE 5  
CAUSES OF DEATH DURING 1959  
ABRIDGED INTERNATIONAL CLASSIFICATION

CLASSIFICATION	Male	Female	Total
26. Arteriosclerotic and Degenerative Heart Disease .....	2	1	3
31. Pneumonia .....	2	1	3
41. Congenital Malformations .....	....	1	1
46. All Other Diseases (Status Epilepticus) .....	1	3	4
Total .....	5	6	11

TABLE 6  
DEATHS BY INTELLIGENCE LEVELS

CLASSIFICATION	Male	Female	Total
Idiot .....	1	2	3
Imbecile .....	1	3	4
Moron .....	3	1	4
Total .....	5	6	11

TABLE 7  
DENTAL CARE

Examinations .....	1382
Extractions, Local Anaesthetics .....	134
Extractions, General Anaesthetics .....	88
Fillings—	
Ag .....	85
Porcelain .....	12
Dentures—	
Complete .....	1
Partial .....	2
Repairs .....	4
Gold Inlays .....	1
X-rays .....	20
Gingivectomies .....	1
Scalings .....	5
Impressions .....	6

## DEERHOME, RED DEER

R. R. MACLEAN, M.D., *Cert. in Neurol. and Psychiatry*,  
F.A.P.A., *Cert. M.H.A. (A.P.A.)*

## MOVEMENT OF RESIDENTS

On 31st December, 1959, the patients at Deerhome numbered 675, of whom 238 were men and 437 were women. Thirty-three others were on leave-of-absence.

There were 381 patients admitted to Deerhome during the year of 1959. Of this number 71 were transfers from the Provincial Training School, Red Deer; 26 were from the Provincial Mental Institute, Edmonton; 236 were from the Provincial Mental Hospital, Ponoka; 21 were from the Provincial Auxiliary Mental Hospital, Claresholm; 23 were direct admissions and four were re-admissions.

A total of 192 women patients were transferred from the Provincial Mental Hospital, Ponoka, on a temporary basis.

Separations from Deerhome numbered 20 during the year. Of these ten were discharged, one was transferred to the Provincial Mental Institute, Edmonton, four to the Provincial Mental Hospital, Ponoka, and one to the Provincial Training School, Red Deer. There were four deaths.

## ACCIDENTS AND ELOPEMENTS

During 1959, a number of patients received injuries through accidents. Many minor contusions and lacerations resulted, which required only first aid treatment. A number of epileptic patients sustained lacerations requiring suturing. As well as these there were eight fractures. These included four fractured femurs, two of which required pinning at the Red Deer Municipal Hospital, and two fractured ankles, one of which required reduction and the application of a cast at the latter hospital.

One patient eloped and was returned by the police.

## GENERAL HEALTH

The general health of the patients was good. Medical care was provided by the Parsons Clinic, Red Deer, twice weekly, and in the interim supervision was carried out by a Registered Nurse. This arrangement was quite satisfactory. Beginning in April, 1959, a member of the Medical Staff of the Provincial Mental Hospital, Ponoka, visited regularly and interviewed and prescribed treatment for the psychotic patients. Several patients were given Electro Convulsive Therapy at the Provincial Training School, Red Deer. One female patient and one male patient were sterilized at the Provincial Training School, following presentation to the Eugenics Board.

Physical examinations, blood work and urinalyses were carried out on all admissions, and conditions discovered were appropriately treated.



All patients but three were X-rayed by the Mobile Chest Clinic in November and one person was found to have active tuberculosis. She was transferred to the Provincial Mental Institute, Edmonton, for treatment.

Dental Clinics were held quite regularly. Many fillings and treatments, as well as 101 extractions, were done. The dentist made a complete dental survey of the patient population during July.

The local ophthalmologist examined several patients who had received eye injuries. All were successfully treated.

#### OCCUPATIONAL THERAPY

A small occupational therapy department was opened in February for approximately 60 patients who were divided into small morning and afternoon classes. In July this group was increased to 80 patients. Starting with simple knitting and embroidery, the department expanded to include weaving, leather and copper work, basketry, rug-hooking and other crafts. In November a very successful sale of this handiwork was held.

Fifty-six male patients and 19 females worked in the laundry, kitchen and at outside work such as snow shovelling, field work and gardening. Approximately 69 men and 72 women patients assisted with the work on the wards.

Several women and men patients were permitted to do gainful work in the nearby City of Red Deer.

#### RELIGIOUS SERVICES

The Red Deer Ministerial Association continued to provide weekly Protestant Church Services during 1959, except during the months of July and August. These were attended by an average of 115 patients. The Roman Catholic priest was provided with a list of all Roman Catholic and Greek Catholic patients and visited a number of them. No regular Roman Catholic Service was held.

#### RECREATION

Walking parties were taken out every suitable day. Group and single special privileges were given to suitable patients—approximately 45 receiving “group privileges” and 73 receiving “single privileges”.

During the winter, weekly dances were held on Saturday afternoons, with music being provided by radio, records, or patients playing their own instruments. Four evening dances were held at suitable intervals, the music being provided by an orchestra. The skating rink was in frequent use for skating parties and casual skating. Selected male patients attended local hockey games.

Large parties of patients attended the Shriners' Circus and the Red Deer Fair.

Summer activities included ball games, wiener roasts and a sports' day, held on the hospital sports ground.

At Christmas small concerts, sing-songs and carol singing by City Choirs and Clubs entertained the patients. "Santa Claus" arrived early Christmas morning and distributed gifts. Wherever and whenever possible the entertainment was designed to include as many of the patients as possible.

Television sets, radios and record players provided many hours of entertainment.

### BUILDINGS

Two new dormitories were opened and occupied. The construction of women staff quarters and the administration building was commenced. A service building for the Public Works Department was built and occupied, releasing considerable space in the Stores department. An incinerator was built and put into use.

### GARDENS AND GROUNDS

Several areas around the completed buildings were landscaped. Considerable kitchen produce was grown in the gardens surrounding the Institution.

### STAFF

In general the health of the staff was good. Some home visits were made in cases where there seemed to be an excessive amount of incidental illness. Chest X-rays were done on staff by the Mobile Clinic in November, and members were notified if follow-up work was necessary. No active tuberculosis was discovered.

The routine administration of T.A.B.T. vaccine and poliomyelitis vaccine was available to all staff members, and staphylococcus toxoid was given where recommended by a physician.

There was no difficulty in filling vacancies or in obtaining staff for new wards.

### VISITORS

The Minister of Public Health and the Assistant Deputy Minister visited Deerhome during the year.

The Director of the Division of Mental Health visited regularly.

The annual visit was made by the Provincial Hospital Visiting Board.

TABLE 1  
MOVEMENT OF POPULATION DURING 1959

	M	F	T	M	F	T
In Residence 31st December, 1958 .....	175	160	335	175	160	335
ADMISSIONS:						
From P.M.H., Ponoka .....	...	236	236			
From P.T.S., Red Deer .....	39	32	71			
From P.M.I., Edmonton .....	20	6	26			
From Claresholm .....	...	21	21			
Direct .....	12	11	23			
Re-admitted .....	2	2	4	73	308	381
Returned from L.O.A. ....	103	99	202			
Returned from P.M.H. ....	...	1	1			
Returned from R.D.M.H. ....	7	4	11			
Returned from P.T.S. ....	3	1	4	113	105	218
	361	573	934	361	573	934
SEPARATIONS:						
Formal Discharges .....	4	5	10			
On L.O.A. ....	109	114	223			
Deaths .....	...	4	4			
To P.M.H. for Treatment or Surgery .....	...	5	5			
To Red Deer Municipal Hospital .....	7	4	11			
To P.T.S. ....	3	2	5			
To P.M.I. ....	...	1	1			
	123	136	259	123	136	259
Total in Residence 31st December, 1959 .....				238	437	675

TABLE 2  
ORIGINAL DIAGNOSIS ON ADMISSION TO MENTAL HOSPITAL

325.0 Idiocy .....	65
325.1 Imbecility .....	229
325.2 Moron .....	102
325.3 Borderline Intelligence .....	7
325.4 Mongolism .....	23
325.5 Mental Deficiency, other and unspecified types .....	2
309.2 Mental Deficiency with Psychosis:	
Idiot .....	1
Imbecile .....	26
Moron .....	29
Borderline .....	2
Other .....	5
	63
300.0 Schizophrenia, Simple type .....	6
300.1 Hebephrenic type .....	12
300.2 Catatonic type .....	95
Catatonic type on M.D. basis .....	23
300.3 Paranoid type .....	23
300.7 Other and unspecified .....	2
301.0 Manic Depressive, Manic and circular (inc. 1 on M.D. basis)....	13
301.1 Depressive .....	3
301.2 Other .....	1
302 Involutional Melancholia .....	2
303 Paranoia and Paranoid States .....	15
304 Senile Psychosis .....	1
305 Presenile Psychosis .....	1
306 Psychosis with Cerebral Arteriosclerosis .....	2
307 Alcoholic Psychosis .....	1
308.1 Psychosis with Convulsant Disorder .....	10
308.5 Psychosis with Huntington's Chorea .....	1
308.7 Traumatic Psychosis—Epilepsy .....	1
318.3 Psychoneurosis—Neurasthenic .....	1
020.1 Juvenile Neurosyphilis .....	1
025 General Paralysis of Insane (Syphilitic Meningoencephalitis) ...	3
*Total .....	708

\*This total includes 33 patients who were on Leave-of-Absence from Deerhome on December 31st, 1959.

## DEPARTMENT OF PUBLIC HEALTH

Table 3

CAUSES OF DEATH DURING 1959  
ABRIDGED INTERNATIONAL CLASSIFICATION

DISEASE	Male	Female	Total
46. All other Diseases .....	....	1	1
22. Vascular Lesions Affecting Central Nervous System .....	....	2	2
26. Arteriosclerotic and Degenerative Heart Disease .....	....	1	1
Total .....	....	4	4

TABLE 4

CLASSIFICATION OF DEATHS ACCORDING TO ORIGINAL PSYCHIATRIC  
DIAGNOSIS—1959

DISEASE	Male	Female	Total
Schizophrenic Disorders .....	....	1	1
Mental Deficiency .....	....	3	3
Total .....	....	4	4

## THE EUGENICS BOARD

The Eugenics Board for the Province of Alberta held ten meetings during the year 1959. These meetings were held at the Provincial Mental Hospital, Ponoka, the Provincial Training School, Red Deer, and the Provincial Mental Institute, Edmonton. The dates of the meetings held during 1959 were as follows:

January 28th, 1959	-	The Provincial Mental Hospital, PONOKA
January 28th, 1959	-	The Provincial Training School, RED DEER
March 24th, 1959	- -	The Provincial Mental Institute, EDMONTON
March 25th, 1959	- -	The Provincial Mental Hospital, PONOKA
March 25th, 1959	- -	The Provincial Training School, RED DEER
May 22nd, 1959	- - -	The Provincial Mental Hospital, PONOKA
May 22nd, 1959	- - -	The Provincial Training School, RED DEER
September 1st, 1959	-	The Provincial Mental Hospital, PONOKA
October 27th, 1959	- -	The Provincial Mental Hospital, PONOKA
October 29th, 1959	- -	The Provincial Mental Institute, EDMONTON

The Board considered a total of 95 cases, one of which was deferred because it did not fall within the scope of The Sexual Sterilization Act. Of the 94 cases which were passed by the Board in accordance with The Sexual Sterilization Act (1955-C. 311, S.5), 32 were male and 62 female. Of this number, 31 were passed subject to their own consent.

Of the 94 cases passed by the Board during the year, 54 had first been examined at a Provincial Guidance Clinic, although some of these had been institutionalized prior to presentation. This group of 54 cases was made up of 23 males and 31 females.

### OPERATIONS

Operations were performed on 90 cases during the year, 40 being male and 50 female. All of these operations were performed at the Provincial Mental Institute, Edmonton, the Provincial Mental Hospital, Ponoka, and the Provincial Training School, Red Deer.

The surgical operations mentioned above were performed by the surgeons of the Board, Dr. J. Ross Vant, of Edmonton, and Dr. R. M. Parsons, of Red Deer.



### APPRECIATION

As in previous years, the Eugenics Board wishes to express thanks and sincere appreciation to the Director, Division of Mental Health, to the Medical Superintendents and their staffs, to the surgeons, and to the Guidance Clinics, for their cooperation in connection with the work of the Eugenics Board.

### TABULAR SUMMARY

A tabular summary of the work of the Provincial Eugenics Board to December 31, 1959, is appended.

#### CASES PRESENTED AND PASSED

(To December 31, 1959)

Years	YEARLY TOTALS			CUMULATIVE TOTALS		
	Male	Female	Totals	Male	Female	Totals
1929-1933 .....	87	201	288	87	201	288
1934-1938 .....	557	438	995	644	639	1283
1939-1943 .....	339	299	638	983	938	1921
1944-1948 .....	237	311	548	1220	1249	2469
1949-1953 .....	187	239	426	1407	1488	2895
1954 .....	41	40	81	1448	1528	2976
1955 .....	61	48	109	1509	1576	3085
1956 .....	38	34	72	1547	1610	3157
1957 .....	46	82	128	1593	1692	3285
1958 .....	116	71	187	1709	1763	3472
1959 .....	32	62	94	1741	1825	3566

#### OPERATIONS ONLY

(To December 31, 1959)

Years	YEARLY TOTALS			CUMULATIVE TOTALS		
	Male	Female	Totals	Male	Female	Totals
1929-1933 .....	48	158	206	48	158	206
1934-1938 .....	198	240	438	246	398	644
1939-1943 .....	122	151	273	368	549	917
1944-1948 .....	87	124	211	455	673	1128
1949-1953 .....	84	162	246	539	835	1374
1954 .....	37	25	62	576	860	1436
1955 .....	45	25	70	621	885	1506
1956 .....	22	24	46	643	909	1552
1957 .....	49	33	82	692	942	1634
1958 .....	54	53	107	746	995	1741
1959 .....	40	50	90	786	1045	1831

## NATIONAL HEALTH GRANTS

Since 1948 the Federal Government has made a series of Health Grants available to the provinces. These relate to various specific problems such as General Public Health, Venereal Disease Control, Hospital Construction, etc. Within these grants the province may prepare a project in which it is proposed that a new health service may be financed. If the project comes within the terms of the federal regulations, it is approved by the federal authorities and the money becomes available to reimburse the province for its expenditure.

In most of the grants the project covers the entire cost of the service as outlined in the project but it is required by the federal authorities, that their grant be matched in the Venereal Disease, Cancer Control, Laboratory and Radiological Services and Hospital Construction Grants, except for equipment and professional training supplied under these grants.

The following table shows the amount of these grants for 1959/60, the amount that was committed under the various projects, the amount actually expended and the percentage of the various grants that was expended.

NATIONAL HEALTH GRANTS  
ALBERTA  
1959-1960

Grant	Amount of Grant	Amount Committed	Amount Expended	Percentage of Grant Expended
Crippled Children .....	37,619.00	37,619.00	37,619.00	100%
Professional Training .....	37,619.00	37,566.17	36,530.44	97.1%
Hospital Construction .....	1,640,411.00	810,026.66	402,333.32	24.5%
Venereal Disease Control .....	37,619.00	37,619.00	37,619.00	100%
Mental Health .....	997,871.00	997,019.32	985,102.42	98.7%
Tuberculosis Control .....	255,243.00	255,243.00	254,225.76	99.6%
General Public Health .....	652,675.00	652,675.00	652,675.00	100%
Cancer Control .....	253,583.00	253,583.00	253,583.00	100%
Laboratory and Radiological Services..	67,325.00	62,991.91	56,335.02	83.6%
Medical Rehabilitation .....	73,137.00	33,662.45	32,269.70	44.1%
Child and Maternal Health .....	142,451.00	137,669.74	134,299.53	94.2%
TOTALS .....	<u>\$4,195,553.00</u>	<u>\$3,315,675.25</u>	<u>\$2,882,592.19</u>	<u>68.7%</u>

NOTE: The Hospital Construction Grant is an accumulative grant and new projects under planning will eventually use up all available funds.

## BLOOD TRANSFUSION SERVICE

D. I. Buchanan, M.D., D.P.H., Edmonton

E. W. Nation, M.B., M.R.C.P., Calgary

In spite of increasing demands from our hospitals on this Service, 1959 proved to be a remarkably good year in which the donor response was such that well over 60,000 units of blood were collected by our hard-working teams.

We cannot over-estimate the very significant part taken by many volunteers in this achievement, whether as individuals, or as groups and committees working towards better clinics, as indicated by the following statistics.

TABLE 1  
BOTTLES COLLECTED, 1959

Jan. 1 to Dec. 31 (inclusive)	Permanent and City Mobiles	Mobile Clinics		
Northern Alberta .....	16,100	13,437	=	29,537
Southern Alberta .....	14,683	17,211	=	31,894
TOTAL .....	30,783	30,648		61,431

Requests for fresh blood, taken specially for individual patients and often at hours separate from our planned clinics, continue to grow in number and in frequency. It is our opinion that all bottles should be silicone-coated, and we have not been impressed by the plastic packs currently available for blood collection. Apart from this, a close watch must still be kept on "weekly quotas" at clinics, to average about 700 donations per week for each of the two centres in Edmonton and Calgary.

## BLOOD TRANSFUSIONS

The number of blood transfusions administered, and the number of patients receiving these transfusions are listed in Table 2.

TABLE 2  
TRANSFUSIONS OF WHOLE BLOOD, 1959

Jan. 1 to Dec. 31 (inclusive)	Blood Transfusions Administered	Patients Transfused
Northern Alberta .....	21,729	9,422
Southern Alberta .....	15,973	7,114
TOTAL .....	37,702	16,536

(The statistics in Table 2 indicate the actual **usage** of blood, as compared to **demands**—thus, in Edmonton and the north 26,018½ bottles of blood were cross-matched and issued, plus another 3,073½ bottles of group O "bank blood" held at the hospitals for emergencies.)

## PLASMA

Freshly frozen plasma continues to be much in demand for patients suffering from hemophilia, etc. Thus, 249 bottles of freshly frozen plasma were prepared in Edmonton and adminis-

tered to 47 patients. From Calgary, 335 pools, and from Edmonton, 239 pools of liquid plasma were shipped to the Connaught Laboratories during 1959 for fractionation.

### Rh. Antenatal, and Other Blood Group Investigations

When most people think of the Red Cross, they most probably think of the donor and transfusion services only, and it is possible that the Rh investigation service and its considerable impact on antenatal and postnatal care is completely overlooked. Yet over 40,000 antenatal and postnatal blood samples were tested for major group, Rh type, and the sera screened, where indicated, for anti-Rh and other irregular antibodies in the Edmonton or Calgary laboratories during 1959, as shown in Table 3.

TABLE 3  
Rh. AND OTHER INVESTIGATIONS, 1959

Jan. 1 to Dec. 31 (inclusive)	Antenatal Specimens and Others Investigated
Northern Alberta .....	24,763
Southern Alberta .....	16,046
TOTAL .....	40,809

In summary, it was found that in 1959 the voluntary donor response increased from 56, 872 in 1958 to 61,431 in terms of blood donations. During the same period, 16,536 patients received whole blood transfusions, and additional numbers received plasma or plasma fractions. Finally, over 40,000 patients' blood specimens were sent in for Rh or other investigations—again the greatest number received so far during any one year.

The Government of the Province of Alberta again provided a substantial grant to the Blood Transfusion Service for 1959, and we are most grateful for all the assistance given in maintaining the two depot buildings in good working order.

The "pilot project" that was started in Edmonton in 1957, in which a small number of student technicians are trained annually in the specific field of blood grouping and associated techniques, continues in force and in value.

We know of no situation in which the whole framework and substance of a vital service is so dependant upon the goodwill and understanding of the public, hospital groups, the Government, and volunteers alike. We feel sure that the B.T.S. will continue to earn this high regard.









**PART II**

**ANNUAL REPORT**

**OF THE**

**HOSPITALS DIVISION**

**OF THE**

**DEPARTMENT OF PUBLIC HEALTH  
PROVINCE OF ALBERTA**

**1959**



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# HOSPITALS DIVISION

J. D. Campbell, B.Com., M.Com., F.C.A., R.I.A., Director

## Introduction

The Alberta Hospitalization Plan was introduced in the Province on April 1, 1958, replacing the Provincial-Municipal Hospitalization Plan which dated back to July 1, 1950.

The present annual report is a factual analysis of the various aspects of Hospitalization and hospital experience in Alberta during 1959 under the Plan. Comparative analysis with previous years are made whenever comparable statistics were available.

The annual report is divided into 3 parts and an appendix. Part I describes the Alberta Hospitalization Plan and deals with its administration, coverage, benefits, and methods of financing. Part II provides general information on approved general hospitals. Part III provides financial information on approved general hospitals. The Appendix contains statistical tables by individual hospitals from which the 1959 hospitalization data in the body of the report were derived.

## Part I. THE ALBERTA HOSPITALIZATION PLAN

### 1. ADMINISTRATIVE RESPONSIBILITY

The Hospitals Division of the Department of Public Health is responsible for administering the Alberta Hospitalization Plan as set out under The Hospitalization Benefits Act.

The duties and powers of the Hospitals Division extend to include the approval of location and construction of hospitals; the training of hospital personnel to the extent that training costs are treated as hospital costs; the determination, approval and maintenance of adequate standards of service rendered within a hospital; the provision of consulting services involving the operation of a hospital to the extent and at such times as it is considered necessary; the inspection and supervision of hospitals the paying of hospitals for insured services and the approval of rates determined; the approval of all hospitals; the administration and enforcement of the regulations made by the Lieutenant Governor-in-Council under The Hospitalization Benefits Act; the administration of the Agreement with the Government of Canada respecting contributions under the Hospital Insurance and Diagnostic Services Act; and the administration and enforcement of The Hospitalization Benefits Act, The Municipal Hospitals Act, The Maternity Hospitalization Act and The Private Hospitals Act.

The Hospitals Division maintains a close supervision of administration of hospitals. The Municipal Hospitals Act governs the election of hospital boards of municipal hospitals and the Division establishes the number of members comprising each board. The appointment of Secretary-Treasurers and Auditors must be approved by the Division. In 1959, a hospital accounting school was held to instruct secretary-treasurers and accountants in uniform hospital accounting.

## 2. COVERAGE

### In-patient Services

Under The Alberta Hospitalization Plan all persons who are legally entitled to reside in Canada and who make their home and are ordinarily present in the Province of Alberta, together with their dependents, are entitled to insured services at any approved hospital of their choice.

Indians, on or off a reserve, are considered residents of the Province for hospitalization purposes and are eligible for hospital benefits under the Alberta Hospitalization Plan. Prior to July 1, 1958, the Federal Department of National Health and Welfare had assumed responsibility for the hospitalization costs of Treaty Indians hospitalized in the active treatment hospitals of Alberta.

A minority of Alberta residents are excluded from benefits under the Plan. These are residents who are entitled to receive hospital benefits from the Government of Canada or from the Workmen's Compensation Board, and residents who are no longer in need of hospital care.

A resident of Alberta moving to another Province participating in hospitalization insurance is covered under the Alberta Plan for the period it takes to become eligible for insured benefits in the new Province. The amount paid for hospital benefits in such a case will be commensurate to the cost of hospitalization, less authorized charges, in a hospital of equivalent size in Alberta.

Persons moving to Alberta from other Provinces which extend hospital benefits to their residents for a period after moving from the Province are not eligible for benefits under the Alberta Plan until the entitlement from the Province from which they have moved has expired.

Alberta residents who move their residence to a Province that has not entered into a hospitalization agreement with the Government of Canada, or move their residence to another country, are covered until they reach their new place of residence in Canada, or until they reach the point of exit from Canada. Persons moving to Alberta from Provinces which do not extend hospital benefits to their residents are automatically covered under the Alberta Plan the day they enter the Province.

The Alberta Hospitalization Plan provides hospital benefits to the residents of Alberta hospitalized outside the Province where treatment received is an emergency or referred case, or where the hospital in which the patient is hospitalized is more accessible than one of the approved hospitals of Alberta.

An emergency case means a person eligible for benefits under the Alberta Plan who, while temporarily away from Alberta, becomes acutely ill and needs active treatment hospital care, but because of his condition is incapable of returning to a hospital in Alberta. A referred case is a resident who has been referred to a hospital elsewhere than in Alberta by an Alberta doctor for treatment of a condition which has been certified by the College of Physicians and Surgeons of Alberta as being unavailable in this province.



"Temporarily away" refers to those residents of the Province who are absent from Alberta on holiday, visit, educational or business engagement for a period of not longer than twelve consecutive months and who intend to return to Alberta. The twelve month period does not apply to residents who leave Alberta for furthering their education and families of members of the Canadian Armed Forces who were residents of Alberta at the time of their enlistment.

Persons classified as tourists, transients, or visitors are excluded from all benefits.

### **Out-patient Services and Chronic Care**

During 1959 out-patient hospital services were provided without charge to pensioners holding hospitalization entitlement card issued by the Department of Public Welfare.

Effective April 1, 1959, the Province of Alberta extended the interpretation of active treatment care to include chronic care. On the foregoing date 10 existing auxiliary hospitals, with a rated capacity of 665 beds, were approved for operation under the Plan. Due to the shortage of beds in this particular area, the Provincial Government entered into contracts with the existing nursing homes, which had been approved by the municipalities, for the accommodation of chronic patients. Also a number of beds in the general hospitals were used for the accommodation of the chronically ill. These are temporary measures and they will be discontinued as soon as sufficient chronic beds are built.

A preliminary survey of the needs for chronic care in Alberta, conducted in 1958, indicated that approximately 3,000 beds would be required.

### **Contract and Federal Hospitals**

There are two hospitals in Alberta which fall under the category of Contract Hospitals: Beulah Home at Edmonton and St. Martin's Hospital at Desmarais. In 1959, there were 6 Federal Hospitals in Alberta, of which 4 were Indian hospitals.

Alberta residents who are hospitalized in these hospitals are covered under the Alberta Plan. Provincial payments to these hospitals are made on a per day basis.

## **3. BENEFITS**

### **Insured Services**

There are no limitations on the length of stay for which the patient is eligible for insured services, provided that the patient requires hospital care. There are also no age restrictions and no excluded conditions or waiting periods due to pre-existing conditions.

Insured services means the level of services for which payment will be made by the Province and to which a resident is entitled under The Hospitalization Benefits Act without charge

other than the payment of the authorized charges. The insured services include:

- (a) Bed accommodation and meals at standard ward level.
- (b) Necessary nursing service.
- (c) Laboratory, radiology and other diagnostic procedures together with the necessary interpretations.
- (d) Drugs, biological and related preparations when administered in a hospital and are necessary for the proper treatment of the patients.
- (e) Use of operating room, case room and anaesthetic facilities including necessary equipment and supplies.
- (f) Routine surgical supplies.
- (g) Use of radiotherapy and physiotherapy facilities where available.
- (h) Services rendered by persons who receive remuneration from the hospital; and
- (i) Such other services as are specified in an agreement.

### **Exclusions**

The Alberta Plan does not provide private or semi-private ward accommodation. If the patient requests such accommodation, he will pay the additional charges made by the hospital for this class of accommodation over and above the charge for standard ward accommodation.

Also excluded are drugs, biologicals and related preparations which are intended for use after discharge from hospital or which are not required for the proper treatment of the patient under the standard ward in-patient care.

Doctors' fees and out-patient services to other than pensioners are excluded. Ambulance services are also excluded, except where ambulance service is used for transferring patients from one hospital to another for treatment which is not available in the transferring hospital.

Necessary nursing service does not include private nursing service; however, such a service may be included when medically required.

## **4. FINANCING HOSPITALIZATION**

The Alberta Hospitalization Plan represents an adjustment in sharing costs. The individual patient or his agent, the Municipality, the Provincial Government, and the Federal Government all share in the financing of Hospitalization in Alberta.

### **Payments by Patients — Co-insurance**

The patient's direct share of the cost of hospitalization is fixed and is based on the rough approximation of the additional cost incurred by the hospital as a result of having the patient hospitalized.

An eligible in-patient who is admitted to an approved hospital or a federal hospital is charged a daily fee, known as a co-insurancy payment, at a rate depending in amount on the

size of the hospital determined by its rated bed capacity. A non-eligible in-patient is charged at a flat rate based on the size of the hospital determined by the rated bed capacity of the hospital at the same level of services as is given to the eligible in-patient.

The daily rates charged to in-patients in approved hospitals are shown in Table 1.

TABLE 1  
DAILY RATES CHARGED TO IN-PATIENTS RESIDENTS AT A STANDARD  
WARD LEVEL

Type of Hospital	Eligible Patients		Non-eligible Patients	
	Adults and Children	Newborn	Adults and Children	Newborn
General Hospitals:				
1 - 29 Beds .....	\$1.50	\$1.00	\$11.00	\$3.00
30 - 89 Beds .....	\$1.60	\$1.00	\$11.50	\$3.00
90 - 179 Beds .....	\$1.80	\$1.00	\$13.00	\$3.00
180 Beds and Over .....	\$2.00	\$1.00	\$15.00	\$3.00
Auxiliary Hospitals .....	\$1.50	....	\$ 7.50	....

After 30 days of hospitalization a newborn patient is classified as a child and is thereafter charged the rates applicable to Adults and Children.

### Payments by Municipalities

The municipalities contribute to the operating costs of hospitalization a set annual amount equal to a levy of 4 mills based on an equalized assessment. In 1959, this amounted to \$5,386,221.78.

In addition, the municipalities as well as the owners of the municipal and civic and voluntary hospitals are required to cover any unapproved operating costs as determined by the Director of the Hospitals Division in the case of each approved hospital for which they are responsible. The excess, unapproved costs of the approved general hospitals in 1959 amounted to \$768,629.28 of which the municipalities absorbed \$576,728.13.

### Payments by the Province

#### (1) Operating Cost

The patients and the municipalities, as outlined above, absorb a fixed share of the approved operating costs of hospitalization. The Province accepts the residual share of the approved operating cost of hospitalization.

The Province pays an approved hospital a basic monthly payment representing an estimate of one-twelfth of the annual residual approved operating costs of that approved hospital, less the amounts which are charged by the approved hospital to non-eligible patients and charges to eligible patients for items not covered under the hospitalization plan.

Each hospital is dealt with as a separate unit with the costs of providing insured services for the previous calendar year representing the basic standard for payment for the current year. Adjustments are made to the basic monthly payment where the individual approved hospital can justify the increased costs as

being reasonable in light of changes in economic conditions and for type of services rendered. The basic monthly rate may be reduced if, upon investigation, it is found that the costs incurred by the approved hospital are unreasonable even though they are below the maximum amount set.

Under the Alberta Plan, the Department of Public Health absorbs the co-insurance charges for resident patients who come under the category of poliomyelitis, social welfare, arthritis, cancer (for a diagnostic period of up to seven days), and maternity and newborn patients for a period of up to twelve days.

For the benefit of its residents hospitalized in active treatment hospitals outside Alberta or in the active treatment Federal Hospitals within Alberta the Province pays the maximum rates for standard ward services shown in Table 2.

TABLE 2  
MAXIMUM RATES PER PATIENT DAY PAYABLE BY THE PROVINCE TO HOSPITALS  
OUTSIDE ALBERTA AND FEDERAL HOSPITALS WITHIN ALBERTA

Size of Hospital	Adults and Children	Newborn
1 - 29 beds .....	\$ 9.50	\$2.00
30 - 89 beds .....	\$ 9.90	\$2.00
90 - 179 beds .....	\$11.20	\$2.00
180 beds and over .....	\$13.00	\$2.00

The co-insurance payable by the above patients is equivalent to co-insurance payments charged to residents hospitalized in the approved hospitals of Alberta.

Where the actual charges made by a hospital reduced by the co-insurance rates payable by the patient are less than Alberta's maximum rates, then the actual charges made by the hospital less the co-insurance are paid. Where the actual charges are more than Alberta's maximum rates, then the excess charges are paid by the patient.

Under the Alberta Hospitalization Plan, the individual hospital's basic payment is adjusted for unpaid accounts receivable. If after six months, the account is still unpaid and the hospital has followed a given collection procedure, the Department of Public Health will pay 50% of the amount outstanding.

## (2) Principal and Interest

The Province of Alberta makes annual repayment of principal and interest on debentures and loans due after January 1, 1959, as a result of approved construction or major renovation of approved hospitals, excepting Lloydminster where the costs are shared with Saskatchewan. The cost of the major equipment is shared by the Federal Government, while the cost of furniture and minor equipment is paid by The Province of Alberta.

The normal total reimbursement for equipment in any calendar year is set at \$100.00 per rated bed including bassinets at the rate of 3 bassinets equalling 1 bed.

The cost of unapproved equipment and/or excess costs of approved equipment is met by the owners of the hospital.

## Payments by the Federal Government

The Federal Government's contribution is the aggregate in the year of 25% of the per capita cost of in-patient services in Canada and 25% of the per capita cost of in-patient services in the province less the amount of authorized charges, multiplied by the average for the year of the number of insured persons in the province.

Generally speaking, the federal contribution amounts to approximately half of the provincial costs across the country, although in individual provinces it may exceed or fall short of half the costs. In Alberta the portion of hospital costs which is paid directly by the patient is not matched by the Federal Government.

## PART II. GENERAL INFORMATION

### 1. Hospitals Operating in Alberta

The statistical data presented in this section of the annual report have been collected from monthly return of in-patients and annual general schedules completed by each approved hospital.

In 1959, there were 120 hospitals operating in Alberta with a rated capacity of 9118 beds. Not included in the above count are mental hospitals, tuberculosis sanatoria, private hospitals and nursing homes. Of the 120 hospitals, 101 (84.2%) were Approved General Hospitals with 82.4% of the total bed capacity.

Table 3 shows the number of hospitals, rated bed capacity and days of care of hospitals operating in Alberta by type for the years 1957 - 1959. The hospital and bed counts are as at December 31. (See also Map on page 8).

TABLE 3

DISTRIBUTION OF HOSPITALS OPERATING IN ALBERTA, THEIR RATED CAPACITY, 1957-1959 AND DAYS OF CARE, 1959, BY TYPE OF HOSPITAL  
(Excluding Domiciliary Beds and Days)

TYPE OF HOSPITAL	Hospitals			Rated Capacity			Days of Care, 1959	
	1957	1958	1959	1957	1958	1959	Adults and Children	Newborn
NUMBER								
Approved General .....	101	101	101	7066	7441	7512	2,209,961	268,756
Approved Auxiliary (Chronic) .....	10	10	10	665	665	665	272,770*	.....
Contract .....	.....	2	2	.....	20	20	2,890	1,134
Federal .....	6	6	7	911	911	921	125,904	4,261
Total .....	117	119	120	8642	9037	9118	2,611,525	274,151
PER CENT								
Approved General .....	86.3	84.9	84.2	81.8	82.3	82.4	84.6	98.0
Approved Auxiliary (Chronic) .....	8.5	8.4	8.3	7.7	7.4	7.3	10.4	.....
Contract .....	.....	1.7	1.7	.....	.2	.2	.1	.4
Federal .....	5.1	5.0	5.8	10.5	10.1	10.1	4.8	1.6
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\*Estimate





[illegible]

The Municipal Hospital Districts of Leduc and Wetaskiwin were created in 1959, thereby increasing the total number of MHD's to 78. As of December 31, 1959, there were 59 MHD's operating their own hospitals, 10 had no hospitals and the rest were served by voluntary hospitals.

Bow Island Municipal Hospital with 20 beds and 8 bassinets began operating February 1, 1959. Mercoal Municipal Hospital with 6 beds closed down in June 1959.

Table 5 shows the distribution of general hospitals, their rated bed capacity and days of care by type of ownership as at December 31. (See also Map on page 8).

### 3. Rated Bed Capacity and Beds Set Up

The rated bed capacity of a hospital represents the number of beds that a hospital is designed to accommodate on the basis of established standards of floor space area and approved by the Minister. Number of beds set up shows the number of beds actually set up for the accommodation of in-patients as at a specified date.

Alberta's hospital experience over the past ten years, 1950 - 1959, shows that the number of beds actually set up for use at December 31 has always exceeded the rated bed capacity of the general hospitals. At December 31, 1959, there were 408 more beds and cribs and 36 more bassinets set up for use than the rated bed capacities of the hospitals. However, the ratio of beds set-up to bed capacity showed a marked and continuous decrease from 1950 until 1957 when it began to increase again.

Due to the fluctuation in the number of patients under care daily in the general hospitals, it is inevitable that some hospitals would find themselves overcrowded during certain months of the year. The study of individual hospitals shows that although 70 hospitals have reported more beds set up at December 31 than their rated capacity (see Table 31), only 9 hospitals had an occupancy of 100.0% or more of rated bed capacity and 39 hospitals had 80.0% occupancy or higher (see Tables 9 and 33).

TABLE 6  
RATED BED AND BASSINET CAPACITY AND BEDS AND BASSINET SET UP IN  
GENERAL HOSPITALS, 1950-1959

Years at December 31	Rated Bed and Bassinets Capacity			Beds and Bassinets Set Up			Beds and Cribs					
	Beds and Cribs	Bassinets	Total	Beds and Cribs	Bassinets	Total	Difference		Rated Increase over the Previous Year			Bed Ratio*
							Actual	Percent	Number	Percent	1950 = 100%	
1950 .....	4992	945	5937	5982	1107	7089	990	19.8	308	6.6	100.0	1.20
1951 .....	5521	998	6519	6239	1132	7371	718	13.0	529	10.6	110.6	1.13
1952 .....	5752	1022	6774	6159	1165	7324	407	7.1	231	4.2	115.2	1.07
1953 .....	6371	1083	7454	6810	1242	8052	439	6.9	619	10.8	127.6	1.07
1954 .....	6546	1144	7690	6910	1283	8193	364	5.6	175	2.7	131.1	1.06
1955 .....	6866	1314	8180	7142	1371	8513	276	4.0	320	4.9	137.5	1.04
1956 .....	6939	1396	8335	7096	1339	8435	157	2.3	73	1.1	139.0	1.02
1957 .....	7046	1409	8455	7270	1406	8676	204	2.9	127	1.8	141.5	1.03
1958 .....	7441	1447	8888	7686	1464	9150	245	3.3	375	5.3	149.1	1.03
1959 .....	7512	1471	8983	7920	1535	9455	408	5.4	71	1.0	150.5	1.05

\*Beds set up to rated bed capacity.

Table 6 shows the rated bed and bassinet capacity and beds set up and the increases in rated bed capacity over the past 10 years.

Of the 7920 beds and cribs set up as at December 31, 1959, 4860 (61.4%) were medical and surgical beds. There were 290 more medical and surgical beds set up than the rated capacity in that category of beds; this increase accounts for 71.1% of the total difference between the rated capacity and beds set up in all categories of beds in general hospitals in 1959.

Table 7 gives a breakdown of the bed capacity of general hospitals and beds set up by category of bed and size of hospital as at December 31, 1959.

TABLE 7

DISTRIBUTION OF BED CAPACITY AND BEDS SET UP BY TYPE OF BED AND SIZE OF HOSPITAL, AS AT DECEMBER 31, 1959

	Number of Hospitals		Total Number of Beds	Per Cent of Total	Size of Hospital by Rated Capacity			
	With Unit	Without Unit			1 - 29	30 - 89	90 - 179	180 and Over
Rated Bed Capacity:	Number of Beds							
Medicine and Surgery .....	100	1	4570	60.8	507	1261	338	2464
Obstetrics .....	99	2	1202	16.0	155	406	87	554
Orthopaedic .....	11	90	399	5.3	7	19	138	235
Paediatrics .....	86	15	1022	13.6	104	286	58	574
Psychiatric .....	2	99	85	1.1	.....	.....	.....	85
Isolation .....	39	62	127	1.7	21	53	2	51
Other .....	6	95	107	1.4	1	3	.....	103
TOTAL .....	....	....	7512	100.0	795	2028	623	4066
Beds Set Up:								
Medicine and Surgery .....	100	1	4860	61.4	613	1427	370	2450
Obstetrics .....	99	2	1220	15.4	178	399	90	553
Orthopaedic .....	11	90	404	5.1	7	24	138	235
Paediatrics .....	93	8	1115	14.1	149	360	60	546
Psychiatric .....	2	99	85	1.1	.....	.....	.....	85
Isolation .....	40	61	121	1.5	20	48	2	51
Other .....	8	93	115	1.4	4	3	.....	108
TOTAL .....	....	....	7920	100.0	971	2261	660	4028

In Alberta as at December 31, 1959, there were 6.1 rated general beds (or 6.4 beds set up) for every 1,000 population. If the 921 rated beds of the Federal Hospitals, the 20 beds of the Contract Hospitals, and the 665 chronic beds were included, the ratio of rated beds per 1,000 population would increase to 7.3.

Compared to 1958, the increase in rated bed capacity of Alberta general hospitals showed a slight decrease in relation to population growth and the increase in hospital cases. This is indicated in the decrease of rated beds per 1,000 population from 6.2 in 1958 to 6.1 in 1959 and the increase of patients per bed from 32.7 in 1958 to 33.4 in 1959.

Table 8 shows the ratios of beds per 1,000 population and their percentage occupancy for the past 10 years, 1950 - 1959.

TABLE 8

ACTIVE TREATMENT BEDS PER 1,000 POPULATION, PATIENTS PER BED PER YEAR,  
AND OCCUPANCY, 1950-1959

Year	Census or Inter-Censal Estimate of Alberta Population	Rated Bed Capacity per 1,000 Population		Bed Complement per 1,000 Population		Patients per Bed Per Year		Occupancy Based on Rated Capacity
		Beds and Cribs	Total	Beds and Cribs	Total	Rated Capacity	Bed Com- plement	
1950 .....	895,000	5.6	6.6	6.7	7.9	32.6	27.2	80.8
1951 .....	939,501*	5.9	6.9	6.6	7.8	30.9	27.3	77.9
1952 .....	970,000	5.9	7.0	6.3	7.6	32.3	30.2	80.3
1953 .....	1,002,000	6.3	7.4	6.8	8.0	31.2	29.2	74.4
1954 .....	1,039,000	6.3	7.4	6.7	7.9	31.6	30.0	76.4
1955 .....	1,066,000	6.4	7.7	6.7	8.0	31.3	30.0	75.4
1956 .....	1,123,116*	6.2	7.4	6.3	7.5	31.9	31.2	75.3
1957 .....	1,160,000	6.1	7.3	6.3	7.5	33.0	32.1	77.5
1958 .....	1,201,000	6.2	7.4	6.4	7.6	32.7	31.8	77.7
1959 .....	1,243,000	6.0	7.2	6.4	7.6	33.4	31.8	81.0

\*Federal census of Alberta. The inter-censal estimates are by the Dominion Bureau of Statistics. The population figures include Indians and members of the Armed Forces.

The percentage utilization of general active treatment beds and cribs increased from 77.7% in 1958 to 81.0% in 1959. The 1959 occupancy figure was the highest since 1950 (80.8%) when the hospitalization plan began operating in Alberta.

The increase in the occupancy of general hospital beds and cribs could be partly attributable to the utilization of these beds for chronic care, especially in small hospitals with low occupancies. This is indicated by the fact that the number of hospitals with less than 60.0% occupancy decreased by 11 hospitals, from 27 in 1958 to 16 in 1959.

The number of hospitals with 90.0% or more occupancy has decreased from 18 hospitals in 1958 to 13 in 1959.

More than one-half (53) of the general hospitals in 1959 had an occupancy of 70.0% to 89.9%. In 1958, there were only 36 hospitals in the same occupancy group.

TABLE 9

PERCENTAGE OCCUPANCY OF BEDS AND CRIBS OF GENERAL HOSPITALS  
BY BED SIZE, 1958 and 1959

Percentage Occupancy	1958	1959	Size of Hospital by Bed Capacity 1959			
			1 - 29	30 - 89	90 - 179	180 and Over
20.0 - 29.9.....	1	....	....	....	....	....
30.0 - 39.9.....	4	1	1	....	....	....
40.0 - 49.9.....	4	2	1	1	....	....
50.0 - 59.9.....	18	13	6	6	....	1
60.0 - 69.9.....	20	18	6	10	2	....
70.0 - 79.9.....	15	27	15	11	1	....
80.0 - 89.9.....	21	26	7	9	3	7
90.0 - 99.9.....	9	4	2	1	....	1
100.0 - 109.9.....	4	3	2	1	....	....
110.0 - 119.9.....	3	2	2	....	....	....
120.0 - 129.9.....	2	3	1	2	....	....
130.0 - 139.9.....	....	1	....	1	....	....



#### 4. Construction of Hospitals

During 1959, a total of 119 general hospital beds, 35 bassinets and a nurses' residence with 59 beds were constructed.

Table 10 shows the new hospital construction completed in 1959.

TABLE 10  
NEW HOSPITAL CONSTRUCTION COMPLETED IN 1959

Hospitals	Beds	Bassinets
Bassano .....	30	7
Bow Island .....	20	8
Cardston .....	40	14
Carmangay .....	14	3
Hanna .....	11	3
Magrath .....	4	....
Nurses' Residence, Vegreville .....	59	....
TOTAL .....	178	35

The Hospitals Division approved in 1959 the construction of some 889 hospital beds, of which 491 were active treatment and 398 chronic. Some of the beds constituted additions to already existing hospitals; others were construction of new hospitals.

#### 5. Movement of Patients

There were 252,521 adult and children patients in the Approved general hospitals of Alberta in 1959. These patients spent 2,209,961 days in hospital. Compared with 1958, there were 7,666 (3.1%) more adult and children patients under hospital care who spent 125,839 (6.0%) more days in hospital.

TABLE 11  
SUMMARY OF MOVEMENT OF PATIENTS AND VOLUME OF HOSPITAL CARE IN  
GENERAL HOSPITALS AND THEIR RELATED LENGTH OF STAY, 1950-1959  
(Including D.V.A. Division of the University Hospital)

Year	PATIENTS			DAYS		
	Admissions	Total Under Care	Separations	During Year	For Separated Patients	Aver. Length of Stay
ADULTS AND CHILDREN						
1950 .....	159,401	162,841	159,345	1,468,312	1,452,639	9.1
1951 .....	167,063	170,517	166,685	1,558,524	1,535,473	9.2
1952 .....	182,185	186,025	182,002	1,614,151	1,655,642	9.1
1953 .....	194,768	198,847	194,668	1,731,621	1,715,805	8.8
1954 .....	202,841	207,023	202,728	1,825,710	1,811,266	8.9
1955 .....	209,670	214,563	209,610	1,885,626	1,868,928	8.9
1956 .....	216,960	221,507	217,060	1,919,699	1,925,254	8.9
1957 .....	223,972	233,418	228,714	1,988,897	1,985,218	8.7
1958 .....	240,150	244,855	239,573	2,084,122	2,069,454	8.6
1959 .....	247,248	252,521	247,177	2,209,961	2,189,370	8.9
NEWBORN						
1950 .....	24,084	24,612	24,205	215,799	215,240	8.9
1951 .....	25,523	26,025	25,508	219,896	219,833	8.6
1952 .....	27,650	28,164	27,631	231,292	231,327	8.4
1953 .....	30,076	30,620	30,033	247,087	246,158	8.2
1954 .....	32,397	32,984	32,403	258,739	259,313	8.0
1955 .....	33,002	33,680	33,043	259,599	261,957	7.9
1956 .....	33,585	34,223	33,631	258,902	259,256	7.7
1957 .....	34,372	34,965	34,335	260,958	260,791	7.6
1958 .....	35,504	36,125	35,472	263,150	262,719	7.4
1959 .....	36,749	37,402	36,746	268,756	268,225	7.3

The number of newborn admissions to the Approved General Hospitals of Alberta was 36,749 in 1959, an increase of 1,245 (3.5%) over the newborn admissions in 1958. The total number of newborns under hospital care in 1959 amounted to 37,402, and they received 268,756 days of care. This is 1,277 (3.5%) more newborn patients and 5,606 (2.1%) more newborn days than in 1958. It should be noted that after 30 days of hospitalization a newborn is considered a child and is "discharged" as a newborn and "re-admitted as a child."

Table 11 is a historical summary of movement of patients and volume of hospital care in general hospitals in the past ten years.

2,084,257 (94.3%) of the total adult and children in-patient days in 1959 were covered under the Alberta Plan; 25,803 (1.2%) of the days were covered by the Federal Government; 61,822 (2.8%) were covered by the Workmen's Compensation Board; 37,400 (1.7%) were non-resident in-patient days; and the rest, 679 days were the days of non-active resident in-patients.

Of the total 1959 newborn days, 265,124 (98.6%) were covered under the Alberta Plan and 3,632 (1.4%) were days of non-resident newborns.

In 1959, the Department of Public Health paid the co-insurance charges for 29.4% of the adults and children resident days and 92.5% of the newborn resident days. The breakdown of the Provincial co-insurance days is shown in Table 12.

TABLE 12  
BREAKDOWN OF CO-INSURANCE DAYS PAID BY THE PROVINCE BY CATEGORY  
OF BENEFIT AND BED SIZE OF HOSPITAL, 1959

Category	Total	Amount	Size of Hospital by Rated Bed Capacity			
			1 - 29	30 - 89	90 - 179	180 and Over
Maternity .....	249,746	\$ 458,036.50	25,195	63,435	16,314	144,802
Pension .....	320,264	570,841.30	43,059	105,137	29,397	142,671
Cancer .....	17,840	35,400.30	84	467	251	17,038
Arthritis .....	1,196	2,250.20	.....	.....	709	487
Polio .....	23,037	44,616.80	.....	74	7,138	15,825
Total A. & C. ....	612,083	1,111,145.10	68,338	169,113	53,809	320,823
Newborn .....	245,341	245,341.00	23,755	60,928	15,566	145,092
TOTAL .....	857,424	\$1,356,486.10	92,093	230,041	69,375	465,915

During the past ten years, 1950 - 1959, the increase in the population of Alberta amounted to 38.9%, while the increases in hospital cases and hospital days were 55.1% and 50.5% respectively during the same period.

Although in 1959 the percentage yearly increase of hospital admissions was the lowest since 1950, the percentage yearly increase of days of hospital care was the highest since 1953.

Table 13 shows the percentage increase in adults and children cases and days in general hospitals during the past ten years.

TABLE 13

PERCENTAGE INCREASES IN ADULTS AND CHILDREN CASES AND DAYS IN GENERAL HOSPITALS IN RELATION TO POPULATION, 1950-1959

Year	Percentage Yearly Increase						As Per Cent of 1950					
	Population	Admissions	Patients Under Care	Separations	Days of Patients Under Care	Days of Separated Patients	Population	Admissions	Patients Under Care	Separations	Days of Patients Under Care	Days of Separated Patients
1950 .....	2.8	2.3	2.4	2.4	2.2	1.6	100.0	100.0	100.0	100.0	100.0	100.0
1951 .....	5.0	4.8	4.7	4.6	6.1	5.7	105.0	104.8	104.7	104.6	106.1	105.7
1952 .....	3.2	9.1	9.1	9.2	3.6	7.8	108.4	114.3	114.2	114.2	109.9	114.0
1953 .....	3.3	6.9	6.9	7.0	7.3	3.6	112.0	122.2	122.1	122.2	117.9	118.1
1954 .....	3.7	4.1	4.1	4.1	5.4	5.6	116.1	127.3	127.1	127.2	124.3	124.7
1955 .....	2.6	3.4	3.6	3.4	3.3	3.2	119.1	131.5	131.8	131.5	128.4	128.7
1956 .....	5.4	3.5	3.2	3.6	1.8	3.0	125.5	136.1	136.0	136.2	130.7	132.5
1957 .....	3.3	5.5	5.4	5.4	3.6	3.1	129.6	143.6	143.3	143.5	135.5	136.7
1958 .....	3.5	4.9	4.9	4.7	4.8	4.2	134.2	150.7	150.4	150.3	141.9	142.5
1959 .....	3.5	3.0	3.1	3.2	6.0	5.8	138.9	155.1	155.1	155.1	150.5	150.7

Table 14 shows hospitalization rates per 1,000 population for the years 1950 - 1959. The admission rate of hospital cases per 1,000 population dropped slightly from 200 in 1958 to 199 in 1959. The 1959 figure is the second highest since 1950. The number of hospital days per 1,000 population rose sharply from 1,735 in 1958 to 1,778 in 1959.

TABLE 14

HOSPITALIZATION CASES, ADMISSIONS, SEPARATIONS AND THEIR RELATED DAYS OF CARE IN GENERAL HOSPITALS PER 1,000 POPULATION, 1950-1959

Year	Census or Inter-Censal Estimate of Alberta Population	CASES PER 1,000 POPULATION			DAYS PER 1,000 POPULATION	
		Admissions	Patients Under Care	Separations	During Year	For Separated Case
1950 .....	895,000	178	182	178	1640	1623
1951 .....	939,501*	178	181	177	1659	1634
1952 .....	970,000	188	192	188	1664	1707
1953 .....	1,002,000	194	198	194	1728	1712
1954 .....	1,039,000	195	199	195	1757	1743
1955 .....	1,066,000	197	201	197	1769	1753
1956 .....	1,123,116*	193	197	193	1709	1714
1957 .....	1,160,000	197	201	197	1715	1711
1958 .....	1,201,000	200	204	199	1735	1723
1959 .....	1,243,000	199	203	199	1778	1761

\*Federal census of Alberta. The inter-censal estimates are by the Dominion Bureau of Statistics. The Population figures include Indians and members of the Armed Forces.

## 6. Length of Stay

Although there are no limitations on the length of stay for which the patient is eligible for benefits, the co-insurance payment per patient day required of eligible patients (see Table 1, page 9) tends to control the length of stay of the patient.

In 1959, however, the average length of stay for adults and children patients has increased to 8.9 from 8.6 in 1958, and for newborn patients the average length of stay continued its steady decline from 8.9 in 1950 to 7.3 in 1959 (See Table 11). In considering the average length of stay of newborn patients it must be

remembered that after 30 days of hospitalization newborn patients are automatically "discharged" and "readmitted" as child patients.

The increase in the average length of stay of adult and children patients could be partly attributable to the fact that in 1959 general hospitals with low occupancies (especially small hospitals) were asked to use part of their facilities for the care of chronic patients. (See also page 5).

As is shown in Table 15, less than one-half (47.9%) of the adults and children patients separated in 1959 have spent 5 days or less in the general hospitals of Alberta, and they absorbed 16.1% of the separated days. Comparable figures for 1958 are 48.0% and 16.4% respectively.

TABLE 15  
PERCENTAGE DISTRIBUTION OF SEPARATED PATIENTS BY LENGTH OF STAY IN DAYS AND SIZE OF HOSPITAL, 1958 AND 1959

Length of Stay in Days	CASES							DAYS						
	Adults and Children, 1958	Adults and Children by Size of Hospital, 1959					Newborn, 1959	Adults and Children, 1958	Adults and Children by Size of Hospital, 1959					Newborn, 1959
		Total	1 - 29	30 - 89	90 - 179	180 and Over			Total	1 - 29	30 - 89	90 - 179	180 and Over	
1 .....	8.4	8.6	13.5	10.8	11.2	5.5	1.1	1.0	1.0	2.0	1.4	1.4	.5	.1
2 .....	12.4	12.1	14.1	12.1	19.4	10.4	.2	2.9	2.8	4.2	3.2	4.8	2.0	.1
3 .....	9.9	9.4	12.0	10.6	10.4	7.8	.8	3.4	3.2	5.4	4.2	3.9	2.3	.3
4 .....	8.6	8.7	10.0	9.5	7.8	8.0	7.5	4.0	4.0	6.0	5.1	3.9	3.1	4.1
5 .....	8.7	9.0	8.6	9.0	7.5	9.4	17.7	5.0	5.1	6.4	6.0	4.7	4.6	12.1
6 .....	8.7	8.9	7.9	8.5	7.9	9.6	24.3	6.1	6.1	7.1	6.8	5.9	5.6	20.0
7 .....	8.7	8.5	7.4	8.9	7.0	8.8	22.3	7.0	6.8	7.7	8.3	6.1	6.0	21.4
8 .....	6.4	6.1	5.7	6.4	6.0	6.0	10.7	5.9	5.5	6.8	6.8	6.0	4.7	11.8
9 .....	4.5	4.4	4.2	4.7	4.2	4.3	4.4	4.5	5.6	5.6	4.7	3.8	5.4	
10 .....	3.5	3.4	3.2	3.3	3.0	3.5	2.4	4.0	3.8	4.8	4.4	3.7	3.4	3.3
11 - 14 .....	8.1	8.0	6.2	7.1	6.0	9.5	3.6	11.6	11.2	11.2	11.6	9.1	11.4	6.0
15 - 19 .....	4.7	4.8	3.0	3.8	3.4	6.1	2.0	9.2	9.1	7.4	8.4	7.1	9.9	4.7
20 - 29 .....	3.8	4.1	2.3	2.9	3.1	5.5	1.9	10.5	11.0	8.1	9.0	9.0	12.6	6.0
30 - 59 .....	2.7	2.9	1.4	1.9	2.0	4.1	1.2	12.2	13.1	8.4	10.1	10.0	15.7	4.7
60 and Over .....	.9	1.0	.5	.6	1.3	1.3	.....	12.5	12.8	8.8	8.9	20.0	14.4	.....
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Long stay cases, patients who were hospitalized for 30 days or more, amounted to 3.9% and absorbed 25.9% of the separated days. Comparable figures for 1958 were 3.6% and 24.6% respectively.

The percentage distribution of separated patients and days by length of stay for 1959 is graphically presented in Diagram II.

## 7. Cases and Days by Age and Sex

The analysis of the average stay by age groups reveals that patients 45 years of age and over have stayed on the average longer in hospital in 1959 than they did in 1958 or 1957. The average stay of patients in the younger age groups has on the whole declined in the same period.

Table 16 shows that in the various groups between the ages of 10 to 74 the average stay of male patients was higher than the average stay of female patients. Diagram III represents Table 16 in graphic form.

TABLE 16

AVERAGE STAY OF SEPARATED ADULT AND CHILDREN PATIENTS BY AGE GROUPS, 1957-1959, AND SEX, 1959

Age Groups	1957	1958	1959	By Sex, 1959	
				Male	Female
Less than 1 .....	8.5	8.4	8.8	8.7	8.9
1 - 4 .....	6.1	5.9	5.8	5.8	5.9
5 - 9 .....	5.6	5.4	5.3	5.3	5.3
10 - 19 .....	6.6	6.5	6.3	6.4	6.2
20 - 29 .....	6.7	6.6	6.6	7.7	6.4
30 - 39 .....	7.4	7.3	7.6	8.5	7.3
40 - 44 .....	8.3	8.3	8.2	9.0	7.8
45 - 49 .....	9.0	9.0	9.2	9.5	9.0
50 - 54 .....	9.5	9.9	10.6	11.1	10.2
55 - 59 .....	10.9	11.0	11.6	12.0	11.2
60 - 64 .....	11.8	12.6	12.8	13.2	12.3
65 - 69 .....	13.2	13.6	13.9	14.4	13.1
70 - 74 .....	13.9	14.8	15.2	15.4	15.1
75 and Over .....	16.4	17.1	17.6	17.5	17.9
No answer .....	8.9	10.4	14.1	17.8	10.8

More than one-third (34.2%) of the adult and children patients were between the ages of 20 - 39 and they utilized 27.4% of the facilities of the Alberta general hospitals. The female patients made up about three-quarters of these cases. This was mainly due to the fact that most maternity cases fall in that age group.

A comparison of the utilization of Alberta general hospital services by age group in 1959 to that of 1958 reveals that the proportion of patients between the ages of 0 - 9 has increased from 18.8% in 1958 to 19.1% in 1959, and the utilization of hospital services by this age group also increased from 13.5% in 1958 to 13.7% in 1959. For patients 70 years of age or over, the proportion of their cases increased from 10.2% in 1958 to 10.5% in 1959 and their hospital days also increased from 19.2% in 1958 to 19.9% in 1959.

TABLE 17

PERCENTAGE DISTRIBUTION OF SEPARATED ADULTS AND CHILDREN PATIENTS AND DAYS BY AGE GROUPS, 1958 and 1959, AND SEX, 1959

AGE GROUPS IN YEARS	CASES				DAYS			
	1958	1958	By Sex, 1959		1959	1959	By Sex, 1959	
			Male	Female			Male	Female
Less than 1 .....	3.9	4.2	2.4	1.8	3.8	4.2	2.4	1.8
1 - 4 .....	7.7	7.8	4.4	3.4	5.2	5.2	2.9	2.3
5 - 9 .....	7.2	7.1	3.8	3.3	4.5	4.3	2.3	2.0
10 - 19 .....	10.5	10.6	4.2	6.4	8.0	7.6	3.1	4.5
20 - 29 .....	20.3	20.1	4.0	16.1	15.7	15.2	3.5	11.7
30 - 39 .....	14.8	14.1	3.8	10.3	12.5	12.2	3.7	8.5
40 - 44 .....	5.0	5.2	1.8	3.4	4.8	4.8	1.9	2.9
45 - 49 .....	4.5	4.5	1.9	2.6	4.7	4.7	2.1	2.6
50 - 54 .....	4.3	4.2	1.9	2.3	4.9	5.0	2.4	2.6
55 - 59 .....	3.8	4.0	2.0	2.0	4.9	5.3	2.8	2.5
60 - 64 .....	3.6	3.6	1.9	1.7	5.3	5.3	2.8	2.5
65 - 69 .....	4.0	3.8	2.1	1.7	6.3	6.0	3.5	2.5
70 - 74 .....	4.1	4.2	2.3	1.9	7.1	7.3	4.1	3.2
75 and Over .....	6.1	6.3	3.5	2.8	12.1	12.6	7.0	5.6
N. A. ....	.2	.2	.1	.1	.2	.4	.2	.2
Total .....	100.0	100.0	40.4	59.6	100.0	100.0	44.7	55.3



In 1959, more than a quarter (25.9%) of the general hospitals facilities were utilized by patients 65 years of age or over; the comparable figure for 1958 was 25.5%.

Table 17 shows the percentage distribution of separated adult and children patients and their related days by age group for 1958 and 1959, and sex for 1959. Diagrams IV and V represent the data for 1959 in graphic form.

### 8. Cases and Days by Marital Status

Hospitalization rates per 1,000 population by marital status, sex and age for 1959 is given in Table 18. Separated and Common-Law are included with "Married" status and Widowed and Divorced with the "Other" status.

A larger proportion of the single men in the various age groups went to hospital and on the average stayed longer than the married men. The rate of hospitalization for divorced or widowed men was still higher than that of the single men.

For married women the hospitalization rate was higher than for unmarried women, except in the 45 - 64 age group. The rates for married women is considerably influenced, of course, by maternity cases, the majority of whom fall in the 15 - 44 age groups.

TABLE 18  
HOSPITALIZATION RATES OF SEPARATED PATIENTS PER 1,000 POPULATION  
BY MARITAL STATUS, SEX, AND AGE, 1959

AGE GROUP	Total			Single			Married			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
SEPARATED CASES PER 1,000 POPULATION												
0 - 14 .....	140	150	131	140	150	131	...	...	...	...	...	...
15 - 24 .....	224	106	346	123	107	145	510	102	683	343	250	359
25 - 44 .....	201	103	304	123	117	136	215	99	325	150	129	156
45 - 64 .....	197	171	229	214	176	334	194	169	225	205	186	211
65 and Over .....	390	385	396	332	344	268	368	363	377	447	493	423
DAYS OF SEPARATED CASES PER 1,000 POPULATION												
0 - 14 .....	882	939	823	882	939	823	...	...	...	...	...	...
15 - 24 .....	1431	788	2098	840	813	878	3104	645	4150	2196	1719	2273
25 - 44 .....	1497	856	2170	1242	1168	1419	1541	770	2264	1500	1800	1411
45 - 64 .....	2161	1961	2404	2668	2552	3040	2057	1835	2332	2593	2602	2589
65 & Over .....	6209	6184	6242	6662	6934	5278	5200	5242	5123	7872	8787	7400
AVERAGE LENGTH OF STAY												
0 - 14 .....	6.3	6.3	6.3	6.3	6.3	6.3	...	...	...	...	...	...
15 - 24 .....	6.4	7.4	6.1	6.8	7.6	6.0	6.1	6.3	6.1	6.4	6.9	6.3
25 - 44 .....	7.4	8.3	7.1	10.1	10.0	10.4	7.2	7.8	7.0	10.0	13.9	9.0
45 - 64 .....	11.0	11.5	10.5	12.5	14.5	9.1	10.6	10.8	10.4	12.6	14.0	12.3
65 and Over .....	15.9	16.0	15.8	20.1	20.1	19.7	14.1	14.4	13.6	17.6	17.8	17.5

### 9. Care of Social Service Recipients

There were 20,389 social service recipients separated from hospitals in 1958, most of whom (79.6%) were Old Age Pensioners. They had stayed in hospital for a total of 315,155 days, or an average of 15.5 days each.

The average number of social service recipients eligible for hospitalization increased by 3,672 (9.1%) in 1959 over 1958, while the number hospitalized and their hospital days increased by 1,116 (5.8%) and 24,647 (8.5%) respectively.

Table 19 shows hospital care in approved general hospitals of social service recipients together with rates for separated cases and days for each category.

TABLE 19  
HOSPITAL CARE OF SOCIAL SERVICE RECIPIENTS, 1959

	1959	Old Age	Mothers' Allowance	Blind Pension	Widows' Allowance	Pension Disability
Average Eligible:						
Number .....	44,052	30,894	7,145	727	826	4,460
% of Total .....	100.0	70.1	16.2	1.7	1.9	10.1
Separated Patients						
Number .....	20,389	16,240	1,277	370	301	2,201
% of Total .....	100.0	79.6	6.3	1.8	1.5	10.8
Per 100 Eligible .....	46.3	52.6	17.9	50.9	36.4	49.3
Days of Separated Patients:						
Number .....	315,155	260,774	9,624	6,136	4,166	34,455
% of Total .....	100.0	82.7	3.1	1.9	1.3	10.9
Per 100 Eligible .....	715.4	844.1	134.7	844.0	504.4	772.5

In 1959 the average length of stay of social service recipients has increased to 15.5 days from 15.1 days in 1958. Old Age and Mothers' Allowance Groups have stayed longer in 1959 than they did in 1958, 1957 or 1956. The average stay of Blind Pensioners has increased sharply from 13.9 days in 1958 to 16.6 days in 1959, but it was less than their average stay in 1956.

Table 20 represents the average length of stay of separated social service recipient patients for the years 1956 - 1959.

TABLE 20  
AVERAGE STAY OF SOCIAL SERVICE RECIPIENT PATIENTS 1956-1959

Type of Benefit	1956	1957	1958	1959	Size of Hospital by Bed Capacity, 1959			
					1-29	30-89	90-179	180 and Over
Old Age .....	15.4	14.9	15.8	16.1	12.4	13.9	14.1	20.9
Mothers' Allowance .....	6.9	7.0	7.4	7.5	4.8	6.4	8.4	9.6
Blind Pension .....	17.1	15.9	13.9	16.6	16.1	13.1	17.3	20.7
Widows' Allowance .....	12.5	14.2	13.0	13.8	7.9	12.1	8.4	18.7
Disability Pension .....	.....	.....	14.2	15.7	10.0	10.2	18.1	24.5
Entire Group .....	14.4	14.9	15.1	15.5	11.7	13.0	14.2	20.5

### 10. Out-of-Province Hospitalization

In 1958, there were 1,464 adults and children patients who received Out-of-Province benefits for 12,273 days of hospitalization, an average of 8.4 days per patient. Of these 131 (8.9%) were hospitalized outside Canada for 1,058 (8.6%) days.

The number of newborns who received Out-of-Province benefits in 1959 amounted to 185 patients, spending 1,103 days in hospital. Of these 6 (3.2%) patients and 25 (2.3%) days were outside Canada.

The total cost to the Province of Out-of-Province hospitalization in 1959 amounted to \$135,332.69 for adults and children patients and \$2,008.50 for newborn patients. Of the total cost, \$12,314.17 and \$50.00 covered the cost of hospitalization outside Canada for adult and children patients and newborns respectively.

Average cost for adult and children patients hospitalized outside Alberta was \$11.03 per day in 1959. The average cost for those hospitalized in Other Canadian Provinces was below the average at \$10.97 and for those hospitalized outside Canada was above the average at \$11.64.

### 11. Personnel and Paid Hours of Work

This section presents data on persons employed by approved general hospitals on a full or part-time basis for all categories of personnel. Total hours of work includes paid holidays and other paid leave, and in the case of student nurses duty and classroom hours, even if not paid.

As at December 31, 1959 there were 11,747 employees at the approved general hospitals, comprising of 11,088 full-time and 659 part-time. This is an increase of 365 (3.4%) full-time and 196 (42.3%) part-time personnel over the same period in 1958. Based on full-time employment (total employee hours divided by 2,080 hours) there were 11,501 persons employed in 1959, or 1,210 (10.5%) more than in 1958.

TABLE 21  
NUMBER OF FULL-TIME PERSONNEL IN GENERAL HOSPITALS AS AT  
DECEMBER 31, 1959 BY CATEGORY OF PERSONNEL AND SIZE OF HOSPITAL

Category of Full-Time Personnel	Number Employed
Medical Staff:	
Medical Superintendent .....	6
Radiologist .....	10
Pathologist .....	10
Residents and Interns .....	129
Other Medical Staff .....	10
Other Professional Personnel:	
Dietitian .....	46
Medical Record Librarian .....	40
Laboratory Technician .....	167
Radiology Technician .....	99
Combined Laboratory and Radiology .....	18
Physiotherapist .....	46
Occupational Therapist .....	5
Pharmacist .....	25
Psychologist .....	1
Medical Social Worker .....	3
Other Social Worker .....	3
Other Professional .....	69
Directors and Supervisors of Nursing .....	372
Nursing Staff .....	5,909
Other Personnel:	
Administration .....	568
Dietary .....	1,058
Laundry .....	440
Linen Service .....	97
Housekeeping .....	991
Physical Plant .....	348
Other .....	618
TOTAL .....	11,088

Table 21 gives a breakdown of the number of full-time employees in general hospitals as at December 31, 1959 by category of personnel. A further breakdown of the Directors and Supervisors of Nursing and Nursing Staff by Hospital is given in table 39 in the Appendix.

For every 100 beds and cribs in approved general hospitals, there were 147.6 full-time employees in 1959, of which 34.2 were graduate nurses, 21.6 were student nurses, 12.2 were qualified nursing aides, and 15.7 were made up of nursing aide trainees (1.3), orderlies (3.6), and other nursing staff (10.8).

Total hours of work in approved general hospitals in 1959 amounted to 23,921,843 as compared to 21,405,062 in 1958, an increase of 2,516,781 (10.5%).

For every patient day including newborn there were 9.7 hours of work in 1959 as compared to 9.1 in 1958.

Adult and children patients received a total of 9,376,224 hours of direct nursing care, of which 37.3% were from graduate nurses, 19.2% from student nurses, 5.3% from orderlies, 35.5% from other nursing staff, and 2.7% from other than nursing staff. On the average, every adult and child in-patient received 4.7 hours of direct nursing care daily.

Direct nursing care for newborns amounted to 718,128 hours in 1959, or an average of 2.7 hours per newborn everyday.

The greater portion (43.5%) of the total hours worked by hospital employees in 1959 was spent on direct care of patients, including out-patient and emergency units. Slightly more than one-third (33.7%) of the hours were spent on general services.

TABLE 22  
DISTRIBUTION OF HOURS OF WORK BY DEPARTMENT AND CATEGORY  
OF STAFF, 1959

Department	Total	Graduate Nurses	Student Nurses	Orderlies	Other Nursing Staff	Other Staff
Undistributed .....	19,156	2,382	.....	.....	.....	16,774
Nursing Administration .....	514,359	443,423	.....	2,080	2,004	66,852
Direct Care:						
Adults and Children .....	9,376,224	3,500,132	1,796,834	497,854	3,328,130	253,274
Newborn .....	718,128	396,676	80,641	2,025	236,800	1,986
Emergency .....	260,598	131,616	73,844	12,136	31,137	11,865
Out-Patient .....	41,021	8,894	7,293	.....	1,330	23,504
Special Services:						
Operating Room .....	914,972	420,473	210,965	47,878	108,210	127,446
Central Supply .....	399,633	68,183	42,168	2,088	73,162	214,032
Pharmacy .....	144,467	20,236	.....	.....	1,034	123,197
Delivery Room .....	458,722	277,338	93,871	.....	43,676	43,837
Laboratory .....	741,265	23,054	149	2,076	7,794	708,192
Radiology .....	433,220	23,302	18,168	2,076	5,147	384,527
Physiotherapy .....	167,200	194	8,080	2,080	136	156,710
Other .....	38,321	664	.....	.....	.....	37,657
Supplementary Services:						
Medical Records .....	272,938	7,745	.....	.....	.....	265,193
Nursing Education .....	1,045,344	257,098	634,635	.....	.....	153,611
Medical Education .....	182,588	.....	.....	.....	23,060	159,528
Social Services .....	35,436	2,064	.....	.....	.....	33,372
Other .....	18,728	.....	.....	.....	.....	18,728
General Services:						
Administration .....	1,414,990	15,372	.....	.....	.....	1,399,618
Dietary .....	2,521,916	104	62,464	.....	.....	2,459,348
Laundry .....	983,858	90	.....	.....	.....	983,868
Linen Service .....	212,068	.....	.....	.....	5,268	206,800
Housekeeping .....	1,982,578	28	.....	.....	617	1,981,933
Physical Plant .....	951,529	.....	.....	.....	.....	951,529
Other .....	72,484	2,084	.....	.....	.....	70,400
<b>TOTAL .....</b>	<b>23,921,843</b>	<b>5,601,152</b>	<b>3,029,112</b>	<b>570,293</b>	<b>3,867,505</b>	<b>10,853,781</b>

The distribution of the total hours of work by category of staff and department in 1959 were as shown in Table 22.

Diagram VI and Diagram VII are graphic presentations of the data in Table 22.

## **12. Departmental Service Statistics**

Within the terms of Hospital Regulations set by the Department of Public Health, the level of services within individual hospitals has been established according to the wishes of the community it services, the policy of the owners of the hospital, and the ability of the hospital to obtain the funds necessary to provide services. Apart from the expected differences in the type of services rendered in the large hospitals with highly specialized departments and the small hospital, there is a difference in the level of services in hospitals of comparable size.

### **(1) Radiology Services**

During 1959, there were 229 X-ray and beam therapy units in the approved general hospitals of Alberta, an increase of 20 units over 1958. Slightly more than one-half (116) were of the stationary diagnostic type; mobile or portable diagnostic machines accounted for 78 (34.1%) of the total; and the remaining 35 machines were miniature type.

There were also 4 superficial therapy and 3 deep therapy X-ray machines, all in the city hospitals.

Of the total number of patients admitted to general hospitals in 1959, 35,905 (14.5%) had their chest routinely X-rayed on admission. There were 483,929 films taken, including spoiled films, of which 444,875 (91.9%) were standard films and 39,054 (8.1%) were miniature films, for a total of 246,975 examinations, or about 2.0 films taken per examination.

### **(2) Laboratory Services**

88 out of the 101 general hospitals have indicated urinalysis examinations as done routinely on admission; haemoglobin and serology examinations are done routinely by 41 and 14 hospitals respectively. Some 21 hospitals have also indicated other examinations done routinely on admission, such as W.B.C., T.B. chest, C.B.C., blood smear, hematocrit, etc.

The volume of laboratory work performed in general hospitals for the hospitals' patients in 1959 amounted to 4,498,596 units, of which 194,418 units (4.3%) were for out-patients.

The unit used in measuring the volume of laboratory work represents ten minutes of time, with approximately seven minutes for technical aspects and three for stenographic, glass-washing, and other preparatory services. Interpretive, diagnostic, consultative, teaching, and research functions are specifically excluded.

As indicated in Table 23, a larger proportion of the hospital's laboratory work load is referred out for reading in the bigger hospitals than in the smaller ones. In the 1 - 29 bed hospitals, 5.1% of the laboratory work is referred out for reading, while the proportion increases to 8.3% in the 30 - 89 bed hospitals, 9.3% in the 90 - 179 bed hospitals and 12.6% in the 180 and over bed hospitals.



TABLE 23

VOLUME OF LABORATORY WORK IN UNITS PERFORMED IN HOSPITAL OR  
REFERRED OUT BY SIZE OF HOSPITAL, 1959

ITEM	Total	Size of Hospital by Bed Capacity, 1959			
		1-29	30-89	90-179	180 and Over
Total Work Done in Hospital:					
In-Patients .....	4,304,178	131,209	518,531	187,176	3,467,262
Out-Patients .....	194,418	7,968	24,600	9,782	152,068
Referred in .....	54,359	8	1,023	529	52,799
Total Work Referred Out:					
In-Patients .....	589,628	7,015	44,567	17,835	520,211
Out-Patients .....	10,765	521	4,661	2,397	3,186
Total Units:					
In-Patients .....	4,893,806	138,224	563,098	205,011	3,987,473
Out-Patients .....	205,183	8,489	29,261	12,179	155,254
Units per in-patient days .....	2.2	.6	1.0	1.2	3.2
Units per in-patient .....	19.4	4.2	7.5	9.9	32.1

**(3) Surgical Services**

There were 101,916 operations carried out in the general hospitals of Alberta, of which 91,750 (90.0%) were on in-patients and 10,166 (10.0%) on out-patients. These figures do not include operations carried out in the emergency unit of the hospital.

On the average, it took slightly more than three-quarters of an hour to perform an operation. Not included in the operating time are the hours spent preparing the patient, clean-up time, "stand-by time", or time spent moving the patient to or from the operating room.

During 1959, about 2 in every 10,000 patients operated on died during the operation, except in the 90 - 179 bed size hospitals where no deaths during operation were reported. Post-operative deaths within 10 full days following the operation amounted to 382 in 1959 or 3.7 in every 1,000 operations. Total post-operative deaths amounted to 456 in 1959, or 4.3 per 1,000 operations.

Table 24 provides data on surgical services in Alberta general hospitals during 1959.

TABLE 24

SURGICAL SERVICES IN GENERAL HOSPITALS BY SIZE OF HOSPITAL, 1959

	Total	Size of Hospital by Bed Capacity			
		1-29	30-89	90-179	180 and Over
Number of Operations .....	101 916	8,832	23,322	8,465	61,297
In-patient .....	91,750	6,990	18,443	8,360	57,957
Out-patient .....	10,166	1,842	4,879	105	3,340
Total Elapsed Time (Hours) .....	79,197	6,023	13,522	3,908	55,744
Deaths During or After Operations .....	456	14	62	17	363
During Operation .....	20	2	5	.....	13
Under 48 Hours .....	157	7	15	7	128
48 Hours to 10 Days .....	225	5	16	10	194
Post Operative Infection .....	517	49	44	28	396
Rates:					
Hours per Operation .....	.78	.68	.58	.46	.91
Operative Deaths (per 1,000 Operations) .....	.2	.2	.2	.....	.2
Total Post Operative Deaths (Per 1,000 Operations) .....	4.3	1.4	2.4	2.0	5.7
Deaths Within 10 Days After Operation (Per 1,000 Operations) .....	3.7	1.4	1.3	2.0	5.3

**(4) Obstetrical Services**

In 1959 there were 36,528 deliveries in the general hospitals of Alberta of which 893 or 24.4 of every 1,000 deliveries were Caesarean sections. A delivery might include multiple live births or stillbirths and therefore total number of deliveries do not coincide with the total number of births. Total number of births in 1959 amounted to 36,897 of which 398 were stillbirths.

During the year, 55.6 in every 1,000 births were premature and 10.0 in every 1,000 births were premature deaths.

Table 25 provides data and rates on obstetrical services in Alberta general hospitals during 1959.

TABLE 25  
OBSTETRICAL SERVICES IN GENERAL HOSPITALS BY SIZE OF HOSPITAL, 1959

	Total	Size of Hospital by Rated Capacity			
		1-29	30-89	90-179	180 and Over
Total Deliveries .....	36,528	3,499	8,651	2,316	22,112
Caesarean Sections .....	893	57	143	59	634
Maternal Deaths .....	6	1	3	.....	2
Stillbirths .....	398	38	99	29	232
Live Births .....	36,499	3,435	8,584	2,318	22,162
Premature Births .....	2,053	119	289	88	1,557
Premature Deaths .....	370	32	97	13	228
Neonatal Deaths .....	552	53	132	31	336
Newborns with Staphylococcal Skin Infection .....	186	13	23	10	140
Rates:					
Caesarean Sections (Per 1,000 Deliveries) .....	24.4	16.3	16.5	25.5	28.7
Stillbirths (Per 1,000 Births) .....	10.8	10.9	11.4	12.4	10.4
Premature Births (Per 1,000 Births) .....	55.6	34.3	33.3	37.5	69.5
Premature Deaths (Per 1,000 Births) .....	10.0	9.2	11.2	5.5	10.2
Neonatal Deaths (Per 1,000 Births) .....	15.0	15.3	15.2	13.2	15.2
Newborns with Staphylococcal Skin Infection (Per 1,000 Live Births) .....	5.1	3.8	2.7	4.3	6.3

**PART III FINANCIAL INFORMATION**

The statistical data presented in this section of the annual report have been collected from auditors' 1959 Financial Statements submitted by each approved hospital. Contract, Federal and Lloydminster Hospitals are excluded throughout this section, auxiliary hospitals are included in some tables and are so indicated.

The year 1955 represents the first year that standardized accounting procedures were effective through most of the approved hospitals, hence comparisons with years prior to that date are somewhat arbitrary.

**1. Expenditure**

The total cost of operating the general hospitals in 1959 amounted to \$38,679,152 including depreciation and interest. Compared to 1958, gross expenditures increased by 3,203,825 or 8.3%. The increase in 1958 over 1957 was \$3,275,658.00 or 10.2%.

Gross expenditure per hospital rated bed, crib, and bassinet capacity averaged \$4,330 in 1959 as compared to \$4,013 in 1958. The average gross expenditure per hospital bed, crib and bassinet set up as at December 31, was 4,113 in 1959 and 3,898 in 1958.

Average cost per adult, child and newborn patient of operating the Alberta approved general hospitals was \$15.70 in 1959; the lowest cost per patient day was in the 30 - 89 bed size hospitals (\$12.13) and the highest cost per patient day was in the 180 beds and over size hospitals (\$17.77).

Percentage distribution and expenditures per patient day are shown on Table 26.

TABLE 26

GROSS EXPENDITURE PER ADULT, CHILD AND NEWBORN PATIENT DAY AND  
PERCENTAGE DISTRIBUTION OF GROSS EXPENDITURE,  
BY DEPARTMENT, 1959

DEPARTMENT	TOTAL		SIZE OF HOSPITAL BY BED CAPACITY							
	Per Patient Day	% of Total	1 - 29		30 - 89		90 - 179		180 & Over	
			Per Patient Day	% of Total	Per Patient Day	% of Total	Per Patient Day	% of Total	Per Patient Day	% of Total
Nursing Administration .....	.31	2.0	.29	2.2	.29	2.4	.29	2.0	.33	1.9
Direct Care of Patients .....	4.85	30.9	4.37	33.4	4.05	33.4	5.13	34.4	5.24	29.5
Operating Room .....	.74	4.7	.32	2.4	.44	3.6	.73	4.9	.94	5.3
Central Supply Room .....	.37	2.4	.18	1.4	.19	1.6	.32	2.1	.49	2.7
Pharmacy .....	.30	1.9	.33	2.5	.30	2.5	.12	.8	.33	1.8
Delivery Room .....	.27	1.7	.16	1.3	.22	1.8	.14	.9	.32	1.8
Laboratory .....	.55	3.5	.20	1.5	.24	2.0	.30	2.0	.77	4.4
Radiology .....	.48	3.1	.36	2.7	.43	3.6	.56	3.7	.51	2.9
Physiotherapy .....	.05	.3	*	**	.01	.1	.09	.6	.07	.4
Other Special Services .....	.14	.9	.06	.5	*	*	.09	.6	.21	1.2
Medical Records and Library .....	.15	1.0	.05	.4	.09	.7	.18	1.2	.20	1.1
Nursing Education .....	.57	3.6	....	....	.03	.2	.10	.6	.96	5.4
Medical Education .....	.15	1.0	....	....	*	**	*	**	.26	1.5
Social Service .....	.01	*	....	....	*	**	.04	.2	*	**
Other Supplemental Services .....	.03	.2	....	....	....	....	.08	.5	.04	.2
Administration .....	1.42	9.1	1.27	9.7	1.20	9.9	1.39	9.3	1.54	8.7
Dietary .....	2.45	15.6	2.46	18.8	2.12	17.5	2.29	15.4	2.60	14.7
Laundry .....	.46	2.9	.52	4.0	.42	3.4	.44	3.0	.47	2.7
Linen Service .....	.20	1.3	.20	1.5	.18	1.4	.21	1.4	.20	1.1
Housekeeping .....	.87	5.5	.70	5.3	.63	5.2	.91	6.1	1.00	5.6
Operation of Physical Plant .....	.80	5.1	1.01	7.7	.84	6.9	.98	6.6	.72	4.0
Maintenance of Physical Plant .....	.51	3.3	.45	3.4	.43	3.5	.53	3.6	.56	3.1
Undisturbed as to Departments ..	.03	.2	.15	1.2	.04	.3	....	....	....	**
<b>TOTAL .....</b>	<b>15.70</b>	<b>100.0</b>	<b>13.08</b>	<b>100.0</b>	<b>12.13</b>	<b>100.0</b>	<b>14.89</b>	<b>100.0</b>	<b>17.77</b>	<b>100.0</b>

\*Less than 0.005

\*\*Less than 0.05%

Direct care of patients absorbed 30.9% of the total gross expenditures and amounted to \$4.85 per patient day. Expenditure on dietary and food was 15.6% of the total and on administration (including nursing administration) it was 11.0% of the total.

Increases in the total gross expenditures of the general hospitals in 1959 added 47 cents to the average operating cost per adult, child and newborn patient day. Expenditures on salaries and wages in 1959 amounted to 26,280,439 or 68.0% of the total gross expenditures and averaged \$10.66 per adult, child and newborn patient day or \$1.08 more than in 1958.

Table 27 shows percentage increases since 1950 in total gross expenditures and expenditure on salaries and wages and expenditure per adult, child and newborn patient day. Figure VI represents per patient day gross expenditures since 1950.

TABLE 27

INCREASES IN GROSS EXPENDITURES AND EXPENDITURES PER ADULT, CHILD AND NEWBORN PATIENT DAY, 1950-1959

Year	Total Gross Expenditure				Salaries and Wages				
	Amount	% Yearly Increase	% of 1950	Per Patient Day	Amount	% Yearly Increase	% of 1950	Per Patient Day	% of Total Expenditures
1950 .....	13,266,925	.....	100.0	7.87	6,462,998	.....	100.0	3.84	48.7
1951 .....	15,060,818	13.5	113.5	8.46	7,486,069	15.8	115.8	4.21	49.7
1952 .....	17,188,076	14.1	129.6	9.31	9,032,252	20.7	139.8	4.89	52.5
1953 .....	20,946,569	21.9	157.9	10.59	11,431,916	26.6	176.9	5.78	54.6
1954 .....	24,015,942	14.7	181.0	11.52	13,778,991	20.5	213.2	6.61	57.4
1955 .....	26,070,752	8.6	196.5	12.15	14,985,622	8.8	231.9	6.99	57.5
1956 .....	28,684,797	10.0	216.2	13.17	16,986,490	13.4	262.8	7.80	59.2
1957 .....	32,261,054	12.5	243.2	14.34	19,906,876	17.2	308.0	8.85	61.7
1958 .....	35,475,327	10.0	267.4	15.21	22,356,146	12.3	345.9	9.58	63.0
1959 .....	38,679,152	8.9	291.2	15.70	26,330,439	17.6	406.6	10.66	68.0

## 2. Earnings

Total gross earnings of general hospitals in 1959 from services to patients amounted to \$8,435,017 of which \$7,252,810 (86.0%) was from services to in-patients and \$1,182,207 (14.0%) was from services to out-patients.

Gross earnings from patient co-insurance was a little more than \$2.5 million or more than one-third of the gross earnings from services to in-patients. The Province absorbed \$1,342,181 in co-insurance payments on behalf of maternity and newborn, pensioners, cancer, arthritis, and polio patients. During 1959, the patients paid more than \$1.5 million as differential charges for preferred accommodation requested by them.

About half-a-million dollars was earned from radiology services to out-patients and another quarter of a million dollars was earned from the emergency Unit.

Figure VII and Table 28 show the distribution of gross earnings of Alberta general hospitals from services to in-patients and out-patients during 1959.

## 3. Value and Depreciation of Plant Assets

The net book value of the plant assets of the approved general hospitals as at December 31, 1959 amounted to \$69,438,283; of this total \$61,257,247 was the net book value of buildings, improvements and permanent fixtures at cost, and \$8,181,036 was the net book value of furniture and equipment at cost.

Summary analysis of value and depreciation of plant assets during 1959 is given in Table 29.

TABLE 28

PERCENTAGE DISTRIBUTION OF GROSS EARNINGS FROM SERVICES TO  
IN-PATIENTS AND OUT-PATIENTS

ITEM	Total	Size of Hospital by Bed Capacity			
		1 - 29	3 - 89	90 - 179	180 and Over
In-patients:					
Provincial Co-Insurance:					
Adults and Children .....	13.0	19.2	19.5	20.1	10.5
Newborn .....	2.9	4.3	4.3	3.2	2.4
Patient Co-Insurance .....					
Adults and Children .....	30.1	38.3	38.5	38.2	26.9
Newborn .....	.3	.4	.3	.1	.2
Federal Government .....	5.0	.6	1.1	.3	6.6
Workmen's Compensation Board .....	10.2	9.2	10.6	7.5	10.4
Non-Residents .....	6.1	7.6	3.9	4.8	6.5
Other Non-eligibles .....	.1	.1	.1	.4	.1
Differential Charges .....	17.8	2.4	7.1	8.0	22.3
Non-benefit Drugs .....	.1	.3	.2	.1	.1
Ambulance Service .....	.1	°	*	1.7	....
Other Additional Services .....	.4	.1	.5	.1	.3
Total in-patients .....	86.0	82.7	86.2	84.5	86.3
Out-patients:					
Emergency Unit .....	2.8	.5	*	.7	3.7
Operating Room .....	.7	2.3	1.8	.7	.3
Central Supply Room .....	.6	2.0	1.0	1.1	.3
Pharmacy .....	1.1	1.9	1.1	.3	1.0
Laboratory .....	1.6	.9	1.1	1.9	1.7
Radiology .....	5.9	8.7	8.5	8.3	4.9
Physiotherapy .....	1.0	.1	.2	1.7	1.3
Other .....	.5	1.0	.2	.7	.5
Total out-patients .....	14.0	17.4	13.8	15.5	13.7
GRAND TOTAL .....	100.0	100.0	100.0	100.0	100.0

\*Less than 0.05 %

TABLE 29

## ANALYSIS OF VALUE AND DEPRECIATION OF PLANT ASSETS, 1959

	Buildings and Building Service Equipment	Major and Other Equipment
Value of Plant Assets:		
Balances at January 1, 1959 .....	66,018,056	11,385,747
Assets Added in 1959 .....	5,337,119	1,337,363
Subtotal .....	71,355,175	12,723,110
Less: Assets Retired in 1959 .....	50,106	133,886
Balances at December 31, 1959 .....	71,305,069	12,589,224
Depreciation of Plant Assets:		
Balances at January 1, 1959 .....	8,791,554	3,810,317
Depreciation Provided During 1959 .....	1,277,437	654,014
Subtotal .....	10,068,991	4,464,331
Less: Accumulated Depreciation on Assets retired .....	21,169	56,143
Balances at December 31, 1959 .....	10,047,822	4,408,188
Net Book Value at December 31, 1959 .....	61,257,247	8,181,036



TABLE 30

BREAKDOWN OF PROVINCIAL EXPENDITURES ON HOSPITALIZATION SERVICES  
AND HOSPITAL EQUIPMENT AND CONSTRUCTION, 1959

Type of Payment	Amount
General Hospitals:	
Co-Insurance .....	1,356,486
Basic Monthly* .....	27,262,742
Bad Debts .....	196,324
Out-Patients .....	22,007
Debt Retirement and Interest .....	2,231,853
Equipment* .....	716,120
Equipment .....	61,528
Renovation .....	125,373
University Out-Patient Clinic .....	24,752
Auxiliary Hospitals:	
Basic Monthly* .....	811,368
Equipment* .....	11,792
Debt Retirement and Interest .....	40,112
D.V.A. Chronic .....	226,728
Federal (D.V.A.) Hospitals* .....	529,912
Federal (Indian) Hospitals* .....	545,977
Contract Hospitals* .....	15,382
Out-of-Province* .....	137,341
Red Cross* .....	102,328
Provincial Laboratory* .....	419,553
Nursing Homes .....	794,462
Home Confinement .....	10,080
<b>TOTAL .....</b>	<b>35,642,220</b>

\*Costs shareable by the Federal government

#### 4. Summary Breakdown of Provincial Expenditure

Total expenditure by the Province for various aspects of the hospitalization program during the calendar year 1959 amounted to more than \$35.64 million. This figure excludes expenditures on mental, tuberculosis and cancer hospitalization.

The costs shareable by the federal government exceeded \$30.55 million and the non-shareable costs were \$5.09 million. The federal contribution to the Province of Alberta in 1959 was approximately \$14.5 million or 47% of the total shareable cost.

Table 30 gives a breakdown of provincial expenditures on hospitalization services and hospital equipment and construction, 1959.

DIAGRAM I

# INCREASES IN PATIENTS AND DAYS OF APPROVED GENERAL HOSPITALS IN RELATION TO POPULATION 1950-1959

(EXCLUDING NEWBORN)

PER CENT

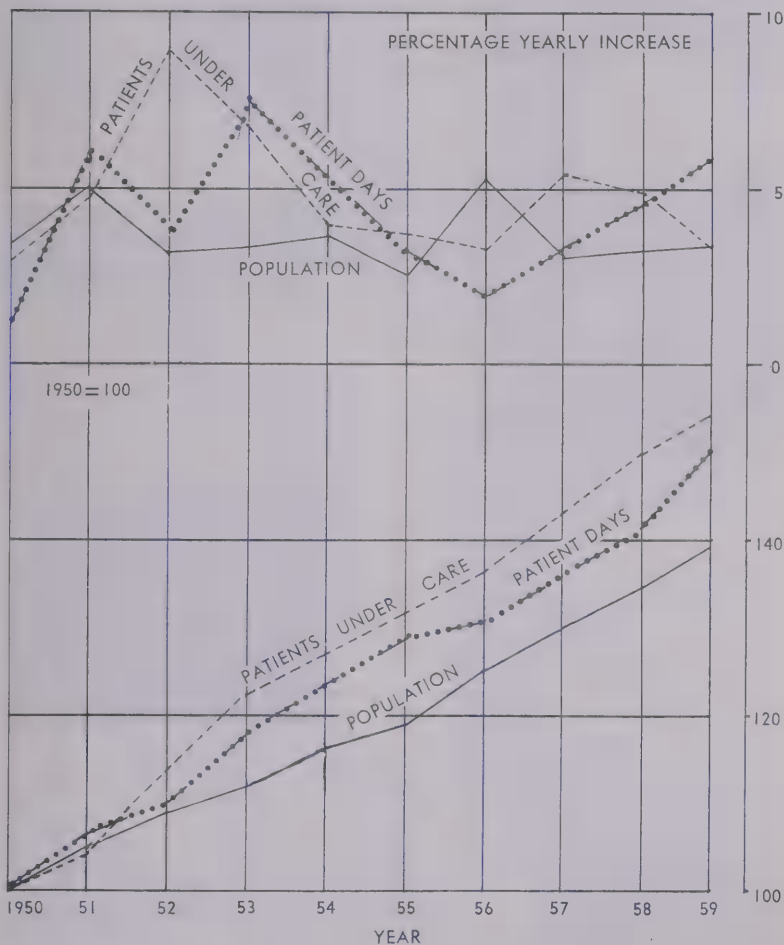
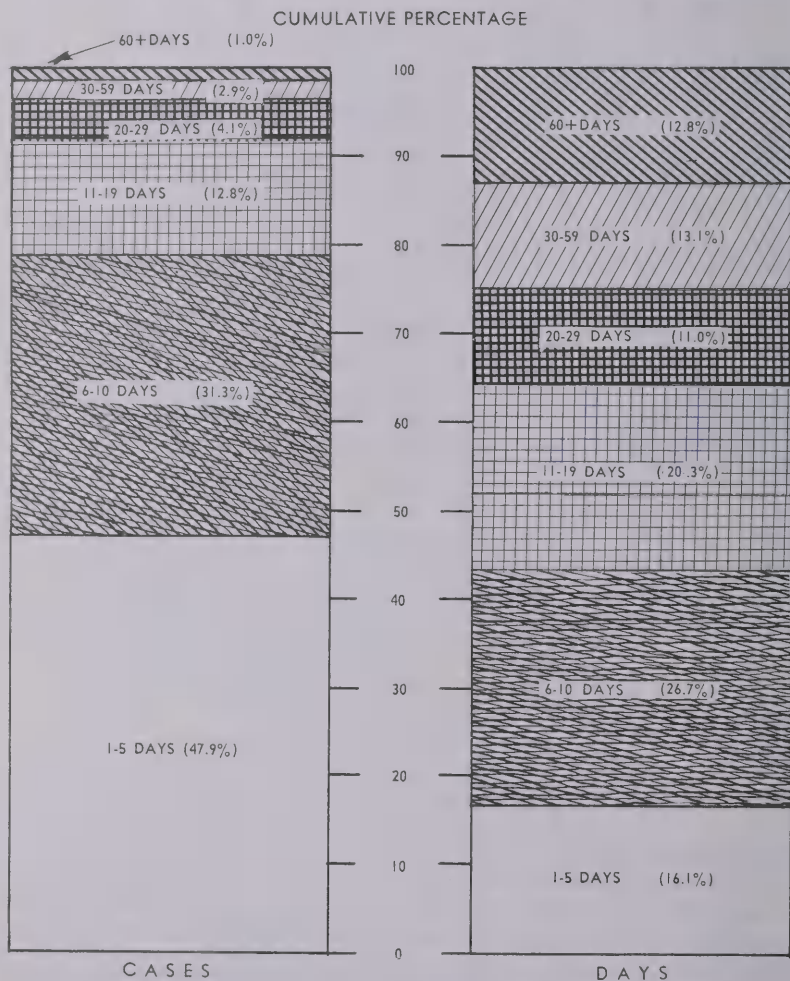


DIAGRAM II

# PERCENTAGE DISTRIBUTION OF SEPARATED CASES AND PATIENT DAYS BY LENGTH OF STAY, 1959

(EXCLUDING NEWBORN, AND D.V.A. DIVISION OF THE UNIVERSITY HOSPITAL)



**DIAGRAM III**

**AVERAGE STAY OF SEPARATED PATIENTS**

**BY AGE GROUPS, 1957 - 1959**

(EXCLUDING NEWBORN)

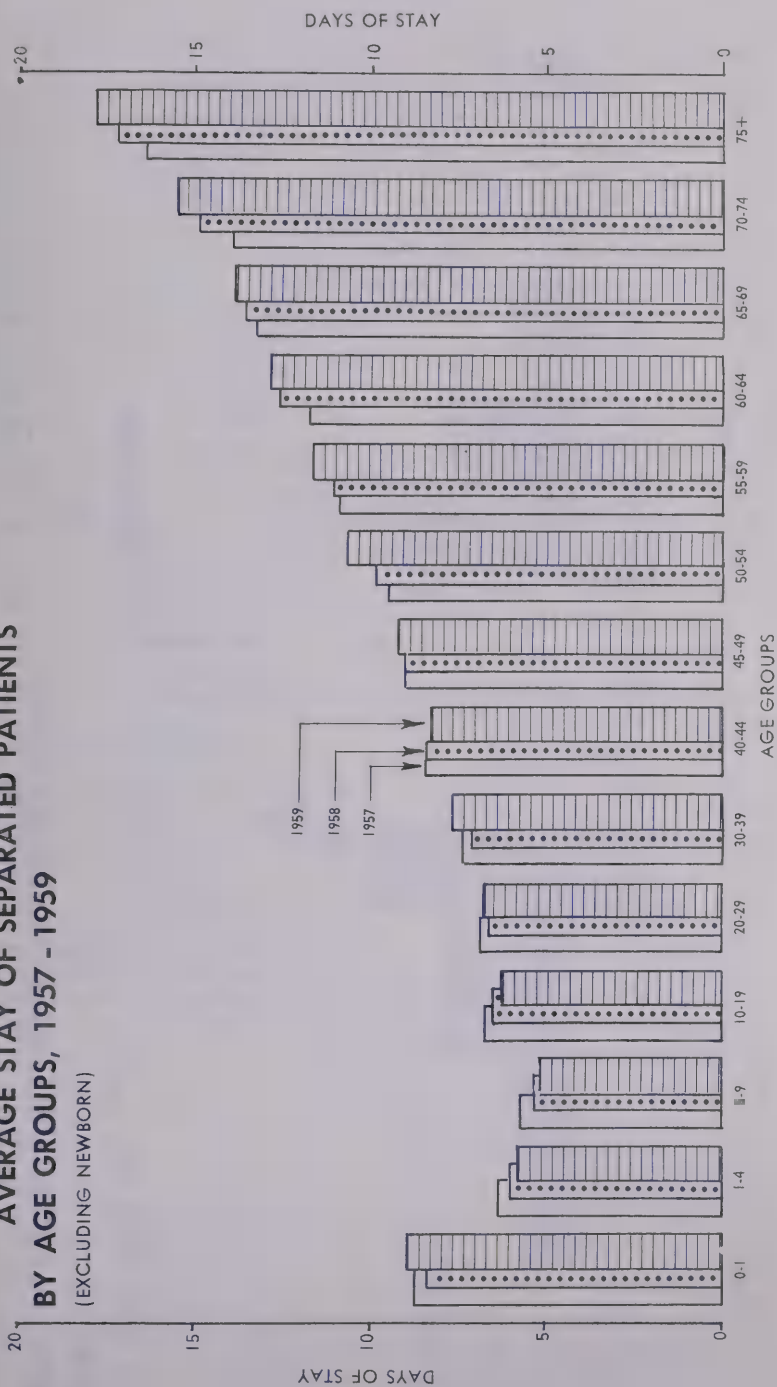


DIAGRAM IV

# **PERCENTAGE DISTRIBUTION OF ADULTS AND CHILDREN SEPARATED CASES AND DAYS BY AGE GROUP, 1959**

(EXCLUDING D.V.A. DIVISION OF THE UNIVERSITY HOSPITAL)

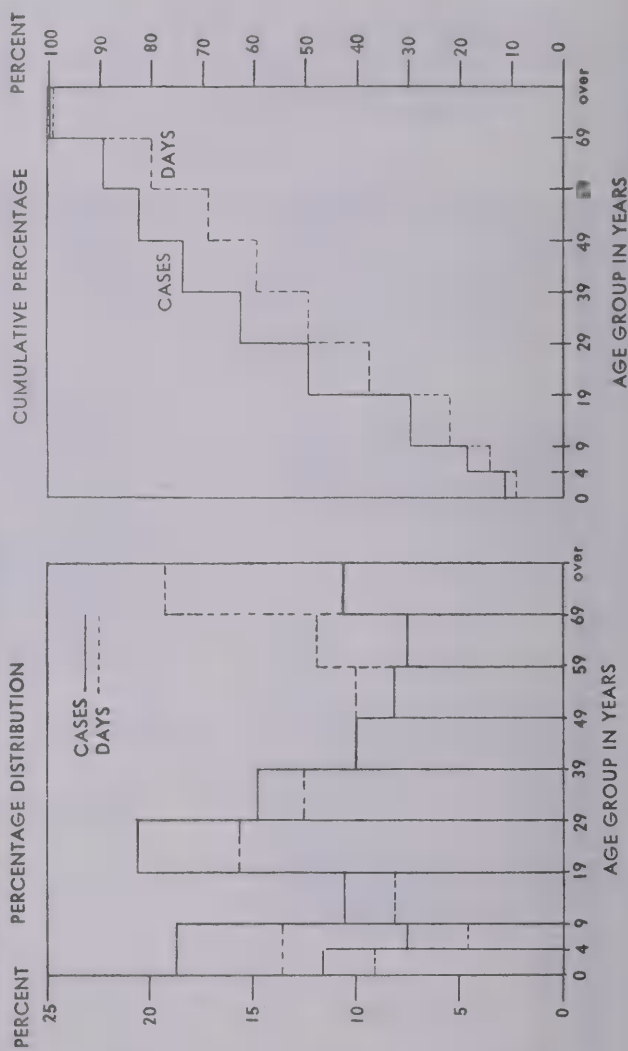




DIAGRAM V

# PERCENTAGE DISTRIBUTION OF SEPARATED CASES AND DAYS BY AGE AND SEX, 1959

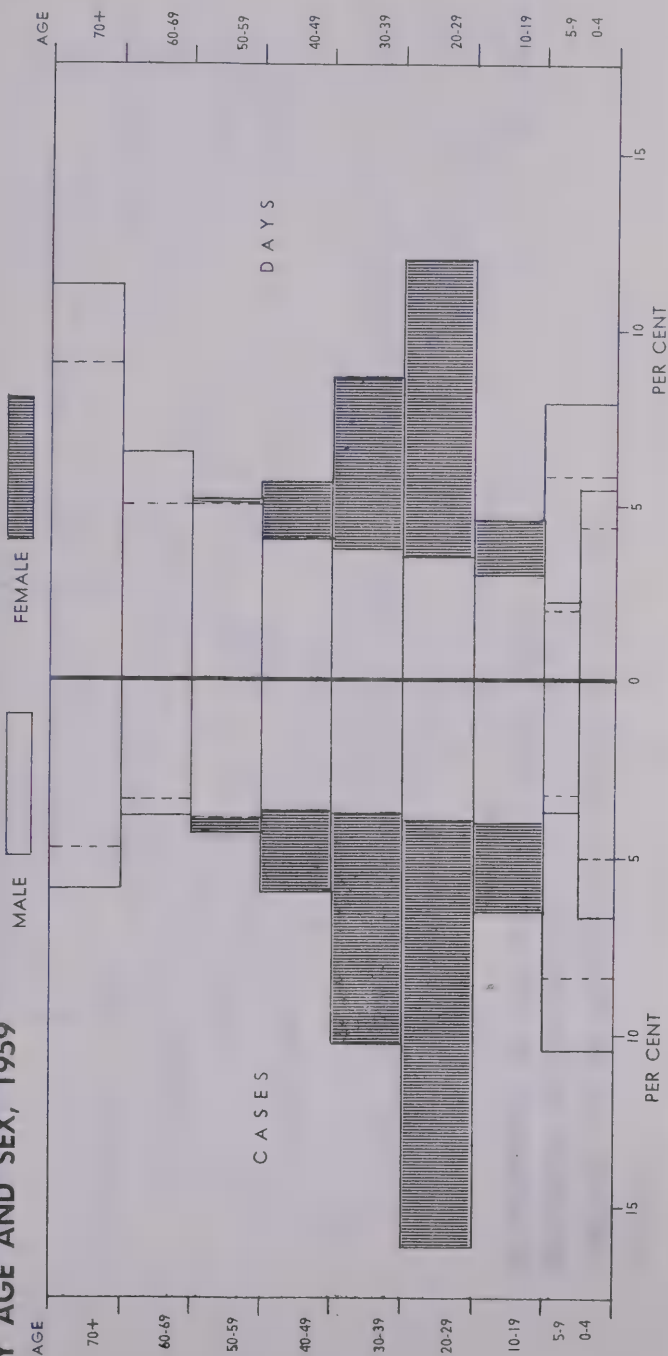


DIAGRAM VI

# PERCENTAGE DISTRIBUTION OF HOURS WORKED IN DIFFERENT DEPARTMENTS BY MEMBERS OF THE HOSPITAL STAFF, 1959

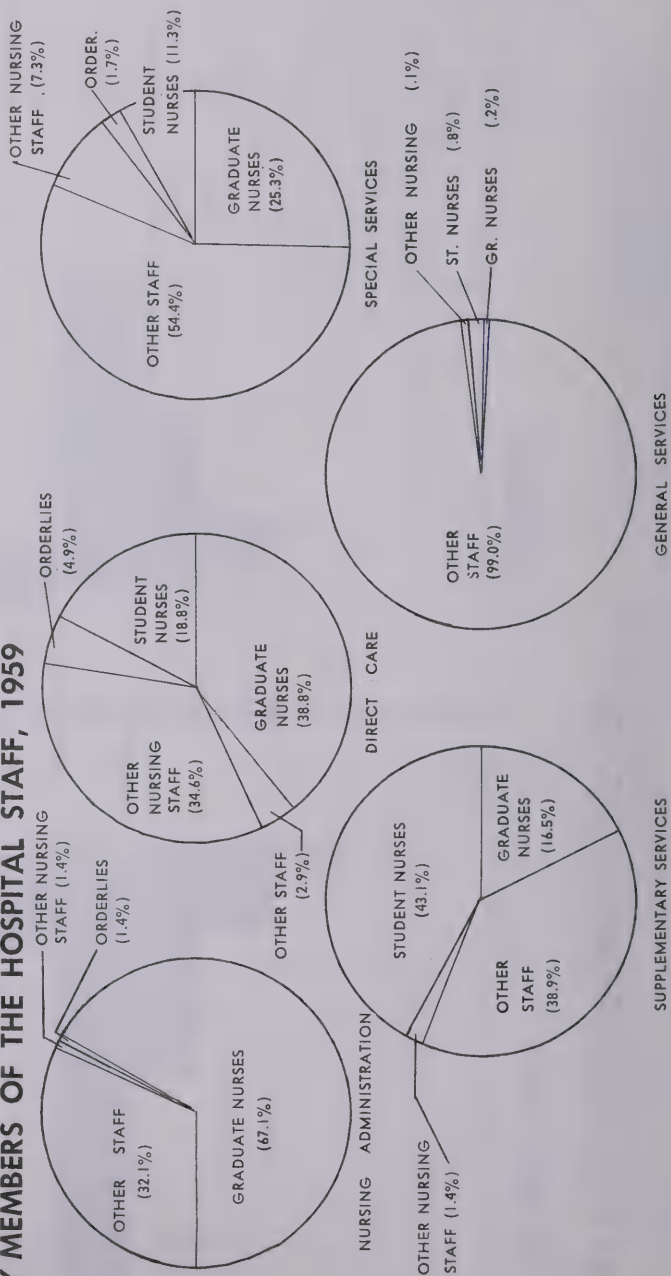


DIAGRAM VII

# PERCENTAGE DISTRIBUTION OF HOSPITAL STAFF HOURS AMONG DIFFERENT DEPARTMENTS, 1959

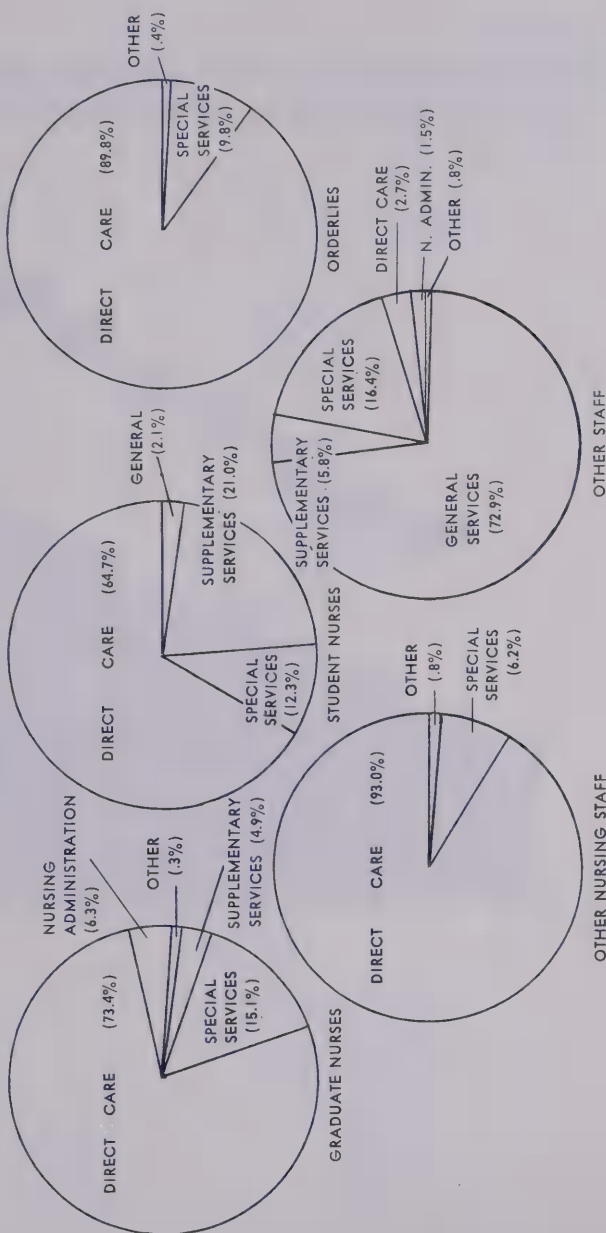


DIAGRAM VIII

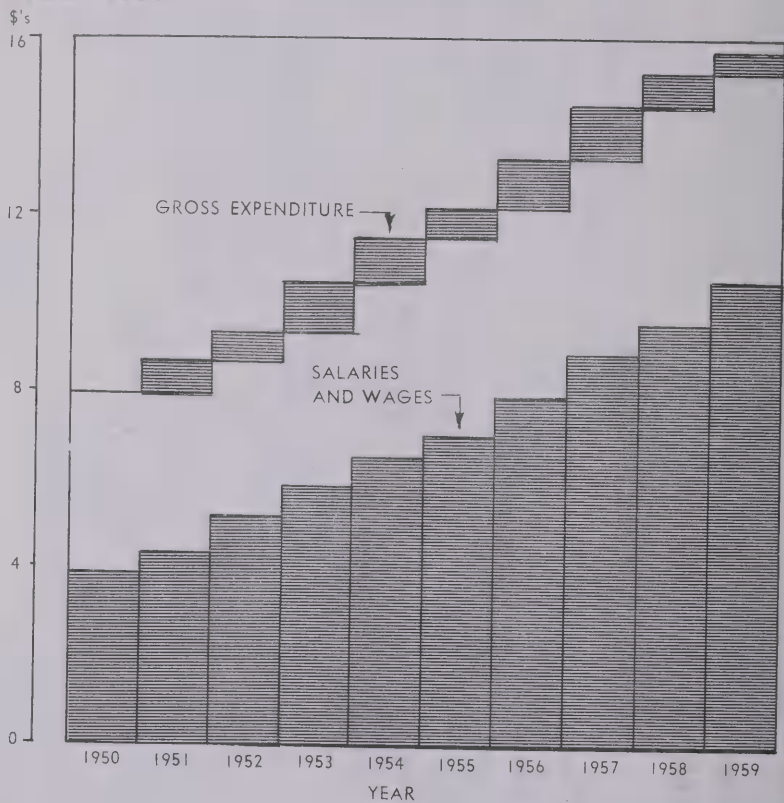
**GROSS EXPENDITURES AND SALARIES AND WAGES  
PER ADULT, CHILD, AND NEWBORN PATIENT DAY,  
1950 - 1959**

DIAGRAM IX  
DISTRIBUTION OF GROSS EARNINGS FROM SERVICES  
TO IN-PATIENTS AND OUT-PATIENTS, 1959

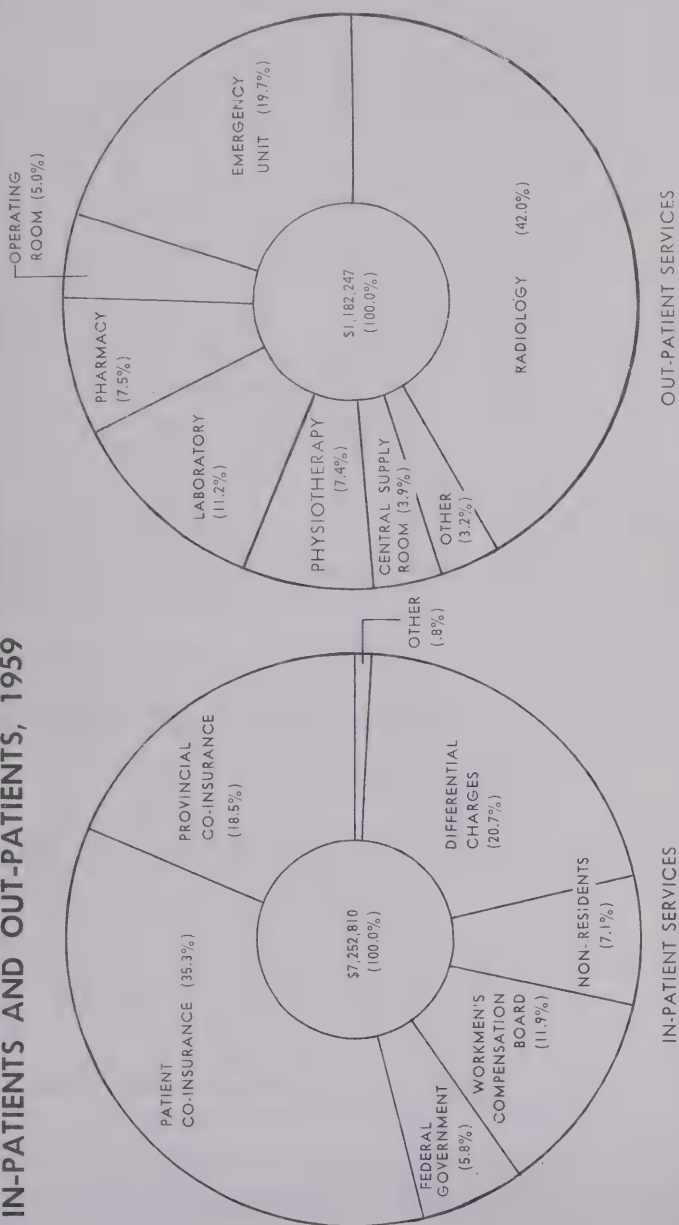




TABLE 31: - RATED BED CAPACITY AND BEDS SET UP AT DECEMBER 31  
BY SIZE OF HOSPITAL AND TYPE OF BED, 1959

Hospital	Rated Bed Capacity							Total beds & Orbs	Basic- beds for Newborn	Beds Set up at Midnight December 31					Total beds & Orbs	Basic- beds for Newborn		
	Type of Bed									Type of Bed								
	Medicine & Surgery	Obstetrics (Maternity)	Ortho- pedic	Pediat- rics (Children)	Psych- iatric	Isolation	Other	Medicine & Surgery	Obstetrics (Maternity)	Ortho- pedic	Pediat- rics (Children)	Psych- iatric	Isolation	Other				
1 - 29 Beds																		
Beaverlodge	10	4	-	4	-	2	-	20	9	4	-	-	-	-	-	20		
Bentley	9	2	-	3	-	2	-	16	7	2	-	-	-	-	-	16		
Berwyn	14	4	-	3	-	-	-	21	14	4	-	3	-	-	-	21		
Bonnyville K.H.P.	17	3	-	2	-	1	-	23	12	5	-	4	-	-	-	23		
Bow Island	12	4	-	2	-	2	-	20	14	4	-	4	-	2	-	22		
Carmore	10	2	-	-	-	-	-	12	4	2	-	-	-	-	-	12		
Carmungay	12	2	-	-	-	-	-	14	10	2	-	-	-	-	-	14		
Castor	19	4	-	3	-	-	-	25	8	4	-	2	-	-	-	25		
Cesral	4	2	-	3	-	-	-	9	9	3	-	9	-	-	-	22		
Coaldale	5	3	1	2	-	1	1	13	5	3	1	2	-	3	-	22		
Coaldale	5	3	1	2	-	1	1	13	5	3	1	2	-	3	-	22		
Cold Lake	13	6	-	6	-	2	-	27	8	6	-	-	-	-	-	28		
Consort	17	4	-	1	-	-	-	22	8	4	-	7	-	2	-	23		
Coronation	14	4	-	6	-	-	-	18	3	4	-	1	-	-	-	18		
Daysland	11	5	-	-	-	-	-	22	5	5	-	-	-	-	-	23		
Devon	6	1	-	-	-	-	-	7	4	1	-	9	-	-	-	25		
Devon Valley	10	6	-	3	-	1	-	20	8	7	-	6	-	-	-	26		
Edenville	17	5	-	5	-	2	-	29	18	6	-	5	-	-	-	31		
Elmora	12	4	-	2	-	-	-	18	5	4	-	5	-	-	-	19		
Empress	14	4	-	3	-	2	-	23	6	4	-	2	-	-	-	23		
Glendon	6	2	-	-	-	-	-	8	7	4	-	-	-	-	-	16		
Hardisty	11	4	-	5	-	-	-	20	6	4	-	5	-	-	-	29		
Hythe	8	2	-	-	-	-	-	10	4	4	-	2	-	-	-	16		
Innisfail	29	3	-	3	-	-	-	37	11	3	-	2	-	-	-	45		
Islay	7	3	-	3	-	-	-	13	8	3	-	5	-	-	-	19		
Jasper	15	11	-	-	-	-	-	26	4	11	-	-	-	-	-	26		
Killam	16	6	-	5	-	-	-	22	20	4	-	-	-	-	-	42		
Kitch	12	4	-	6	-	-	-	27	6	7	-	8	-	-	-	31		
Kitch	12	4	-	6	-	-	-	27	6	7	-	8	-	-	-	31		
Manville	16	4	-	-	-	-	-	16	8	4	-	6	-	-	-	28		
Manville	16	4	-	-	-	-	-	16	8	4	-	6	-	-	-	28		
Mayerthorpe	8	6	-	4	-	2	-	15	19	6	-	3	-	-	-	30		
McMurray	11	4	-	6	-	-	-	20	8	6	-	4	-	2	-	30		
McMurray	11	4	-	6	-	-	-	20	8	6	-	4	-	2	-	30		
Mundare	10	4	-	4	-	-	-	17	4	4	-	6	-	-	-	27		
Mundare	10	4	-	4	-	-	-	17	4	4	-	6	-	-	-	27		
Myram	12	2	-	4	-	2	-	20	8	2	-	4	-	-	-	24		
Myram	12	2	-	4	-	2	-	20	8	2	-	4	-	-	-	24		
Cyen	10	3	2	2	-	-	-	17	5	4	-	5	-	-	-	24		
Provost	17	4	-	3	-	2	-	26	6	4	-	4	-	-	-	29		
Rayway	9	3	-	2	-	-	-	14	6	3	-	2	-	-	-	15		
Raymond	12	3	-	3	-	-	-	18	5	4	-	2	-	-	-	25		
Reinbeck	13	2	-	4	-	-	-	19	8	4	-	6	-	-	-	25		
Rimney	10	4	-	1	-	-	-	15	5	5	-	2	-	-	-	20		
Smoky Lake	4	4	-	4	-	-	-	15	5	5	-	2	-	-	-	20		
Three Hills	17	4	-	4	-	-	-	25	10	4	-	4	-	-	-	23		
Turner Valley	18	4	-	-	-	-	-	22	6	4	-	-	-	-	-	22		
Valma	6	4	-	4	-	-	-	14	3	4	-	4	-	-	-	18		
Wallington	10	3	-	-	-	-	-	13	3	4	-	4	-	-	-	21		
TOTAL	507	155	7	104	-	21	1	795	252	613	178	7	149	-	20	4	971	270

Hospital	Total beds for Orbs	Rated Bed Capacity					Total beds for Orbs	Hasi- neta Newborn	Beds Set up at Midnight December 31					Total beds for Orbs	Hasi- neta Newborn
		Type of Bed							Type of Bed						
		Medicine & Surgery	Obstetrics (Maternity)	Pedi- atri- ces (Children)	Psych- iatric	Other			Medicine & Surgery	Obstetrics (Maternity)	Pedi- atri- ces (Children)	Psych- iatric	Other		
30 - 39 Beds															
Athabasca	28	8	-	-	-	-	42	13	35	8	-	-	-	49	13
Barrhead	36	5	-	-	-	-	46	11	41	5	-	-	-	51	11
Beaumont	34	12	-	4	-	-	60	14	46	8	-	1	-	66	16
Bassano	22	6	-	-	-	-	30	7	23	6	-	-	-	32	7
Blainmore	52	14	-	2	-	-	72	6	51	6	-	1	-	62	6
Bonnyville St. Louis															
Brooke	28	10	-	-	-	-	52	12	39	8	-	-	-	60	12
Calgary Grace	21	12	12	2	-	-	54	13	41	12	-	2	-	64	13
Cardston	16	28	-	-	-	-	44	24	34	23	-	-	-	44	24
Cirershalm	23	10	-	2	-	-	40	14	23	10	-	2	-	41	14
Clareholm	23	9	-	-	-	-	42	6	28	9	-	4	-	42	6
Didsbury	20	8	-	-	-	-	32	11	23	8	-	-	-	35	11
Edson	20	11	-	2	-	-	37	5	11	11	-	2	-	39	5
Elk Point	39	5	-	2	-	-	51	9	47	5	-	10	-	64	9
Fairview	13	6	7	2	-	-	19	10	6	6	-	-	-	16	10
Ft. McLeod	23	4	-	1	-	-	32	11	23	4	-	-	-	32	11
Ft. Vermilion	15	5	-	2	-	-	32	7	23	5	-	11	-	41	7
Gladwin	26	26	-	2	-	-	40	9	30	6	-	9	-	44	9
Hanna	36	7	-	2	-	-	53	12	36	7	-	8	-	53	12
High Prairie	25	8	-	-	-	-	41	12	38	11	-	14	-	54	12
High River	48	7	-	4	-	-	64	14	48	7	-	4	-	64	14
Lacombe	26	20	-	-	-	-	50	16	26	20	-	-	-	50	16
Lac La Biche	36	9	-	-	-	-	44	14	41	9	-	-	-	44	14
Lloydminster	23	8	-	-	-	-	42	11	30	10	-	-	-	47	11
Manitou	23	8	-	-	-	-	53	14	35	8	-	-	-	72	14
Olds	28	6	-	2	-	-	41	9	29	7	-	5	-	43	9
Peace River	27	4	-	1	-	-	37	9	40	5	-	12	-	58	9
Pincher Creek	44	8	-	3	-	-	64	6	40	9	-	10	-	62	6
Ponoka	32	9	-	2	-	-	48	11	32	8	-	8	-	48	11
Rocky Mt. House	25	4	-	-	-	-	35	7	25	4	-	-	-	35	7
Spirit River	20	14	-	-	-	-	44	14	25	14	-	15	-	54	14
Stettler	37	10	-	3	-	-	56	8	44	10	-	6	-	63	8
St. Paul	16	12	-	2	-	-	37	16	32	12	-	2	-	46	16
Taber	42	15	-	2	-	-	68	11	47	15	-	12	-	75	15
Tofield	21	6	-	2	-	-	31	9	29	6	-	3	-	40	9
Trochu	18	7	-	-	-	-	31	6	18	7	-	6	-	31	6
Two Hills															
Vegreville	22	6	-	2	-	-	34	9	23						

TOTAL





Hospital	Bated Capacity		In at Beginning of Year		Admissions		Total Under Care		Discharges		Deaths		Total Separations		In at End of Year		Still- births	
	Beds & Cribbs	Basinets	Adults & Children	Newborn Total	Adults & Children	Newborn	Total	Adults & Children	Adults & Children	Newborn	Total	Adults & Children	Newborn	Total	Adults & Children	Total		
30 - 89 Beds																		
Athabasca	42	13	23	25	2067	210	2277	2090	212	2052	204	2256	22	204	2074	208	16	20
Barth	46	11	29	29	1504	120	1624	1533	120	1653	115	1600	1	115	1591	116	4	32
Barrhead	60	14	43	50	2629	248	2877	2672	255	2927	2598	244	2832	34	244	2827	249	4
Bassano	30	7	15	16	768	75	843	783	76	859	747	820	19	76	766	75	6	56
Blainville	72	6	23	21	1417	110	1527	1440	111	1551	1367	1474	43	111	1460	110	1	31
Bonnyville St. Louis	52	12	21	21	1165	117	1282	1186	117	1303	1149	1262	13	113	1162	115	2	26
Brooks	64	13	39	42	2063	2032	2316	2102	256	2358	2041	249	2290	23	27	2064	253	3
Calgary Grace	44	34	1	1	1610	1032	2642	2642	181	2689	1986	1014	2600	10	22	1596	1026	3
Cardston	40	14	10	10	1304	178	1482	1314	178	1492	1269	1442	28	173	1291	176	23	41
Clareholm	42	6	21	2	1068	110	1178	1089	112	1201	1041	1145	28	104	1069	108	2	10
Didsbury	32	11	25	28	1213	143	1356	1238	146	1384	1194	144	1338	30	15	1224	145	1
Edson	37	5	23	3	1111	122	1233	1193	126	1259	1097	123	1220	23	25	1120	125	15
Elk Point	51	9	34	4	2501	187	2688	2681	184	2719	2456	169	2625	27	5	2483	253	2
Fort McMurray	32	10	27	31	1632	177	1809	1699	181	1840	1609	177	1786	16	1	1625	178	32
Fort McLeod	32	11	18	5	1115	121	1236	1133	126	1236	1097	123	1220	23	25	1120	125	1
Fort Vermilion	32	7	24	4	953	126	1059	957	130	1087	926	126	1052	13	13	939	126	2
Galahad	40	9	27	27	1518	172	1590	1545	172	1617	1512	148	1550	11	1	1523	169	2
Hanna	53	12	40	10	50	1513	178	1691	1553	188	1761	141	178	1553	182	38	44	
High Prairie	41	12	38	5	2032	286	2318	2099	291	2308	2042	275	2002	27	3	2044	290	2
High River	64	14	29	2	1821	256	2077	1850	258	2102	1776	250	2026	26	3	1892	253	1
High River	50	16	27	5	1974	259	2233	2021	264	2265	1930	260	2190	36	1	1966	253	3
Lacombe	57	14	33	3	2022	219	2241	2055	222	2677	2396	213	2609	15	5	20	38	4
Lakeland	45	11	31	1	1351	209	1560	1391	213	1604	1332	205	1537	17	2	1349	207	6
Lloydminster	43	15	38	41	1857	256	2111	1899	260	2159	1840	28	260	1931	217	48	48	
McLennan	52	14	38	4	2061	217	2278	2099	220	2319	2052	3	220	2065	217	30	2	
Olds	41	9	24	3	1414	218	1632	1438	221	1559	1389	210	1599	19	7	1208	217	3
Peace River	37	9	47	54	1974	217	2170	2000	224	2224	1931	220	2193	26	28	1957	222	2
Pincher Creek	64	6	29	5	1756	204	1960	1785	209	1994	1738	205	1943	30	30	1765	208	45
Ponoka	48	11	31	1	1832	210	2042	1853	211	2074	1794	207	2001	37	39	1831	209	1
Rocky Mt. House	35	11	1	15	1069	182	1251	1083	183	1266	1044	173	1217	18	5	1062	178	2
Spirit River	44	14	38	44	1557	108	1665	1595	114	1709	1551	113	1664	12	1	1563	114	6
Stettler	56	8	48	4	1855	256	2111	1899	260	2159	1840	28	260	1931	217	30	3	-
St. Paul	37	16	46	5	2304	297	2601	2350	262	2632	2301	39	262	2350	258	2	2	3
Taber	68	11	46	4	2340	340	2770	2470	344	2820	2393	332	2725	46	41	2324	337	3
Toronto	31	9	21	2	1495	112	1607	1516	149	1630	1468	11	1601	11	1	1502	112	4
Trechu	31	1	11	-	1155	149	599	561	41	610	532	43	580	15	1	547	49	2
Two Hills	34	9	27	4	1113	73	1211	1161	77	1238	1126	75	1201	15	1	1141	76	11
Vegreville	85	14	49	5	2413	347	2760	2413	347	2760	2413	46	347	2413	347	20	-	-
Vermilion	35	14	30	4	1507	183	1690	1597	1616	173	1672	44	173	1507	169	5	71	-
Viking	54	9	18	4	1247	112	1359	1265	113	1359	1245	114	1339	23	4	1248	134	-
Vulcan	37	7	25	3	1443	134	1577	1468	137	1605	1418	131	1549	26	1	1344	132	2
Wainwright	48	14	19	2	1701	252	1953	1720	254	1974	1664	26	1906	26	5	1690	217	6
Wetlock	75	18	57	4	2267	274	2541	2324	272	2541	2324	46	272	2324	272	5	7	3
Wetaskiwin	60	12	52	7	2529	327	2856	2581	334	2915	2817	4	334	2817	4	49	10	10
TOTAL	2028	485	1272	158	72343	8805	82148	74625	8958	72236	8672	1055	89908	1055	132	73291	8904	99

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## MOVEMENT OF PATIENTS - APPROVED GENERAL HOSPITALS, 1959

Hospital	Rated Capacity		In at Beginning of Year		Admissions		Total Under Care		Discharges		Deaths		Total Separations		In at End of the Year		Still births							
	Beds & Cribes	Basis-notes	Adults & Newborn Children	Total	Adults & Newborn Children	Total	Adults & Newborn Children	Total	Adults & Newborn Children	Total	Adults & Newborn Children	Total	Adults & Newborn Children	Total	Adults & Newborn Children	Total								
90 - 179 Beds																								
Calgary Children's	128	--	42	42	2164	--	2206	2145	---	2145	2	--	2	2147	---	2147	59	--	59	--				
Calgary Holy Cross	98	22	86	12	3934	413	4347	4020	4445	3883	4415	79	2	4379	417	4379	58	8	66	3				
Drumheller	94	20	51	9	60	2031	299	2330	1974	204	2268	56	7	63	2030	301	2331	52	7	59	3			
Grande Prairie	108	16	65	7	72	4242	663	4905	4307	649	4977	61	12	73	4219	661	4880	88	9	97	8			
Lamont	91	10	57	3	60	2872	118	2990	2832	117	2904	33	2	35	2865	119	2984	64	2	66	3			
Red Deer	104	30	83	18	101	5021	837	5858	5104	955	5959	4961	831	75	5028	839	5867	76	16	92	12			
TOTAL	623	98	384	49	423	20264	2330	22594	20648	2379	23027	19953	2306	31	329	20251	2337	22588	397	42	439	29		
180 Beds & Over																								
Calgary General	726	110	573	72	645	23823	5124	28947	24396	5196	29592	23153	5031	28199	673	90	763	23831	5121	28952	565	75	640	51
Calgary Holy Cross	342	54	237	31	268	11029	2530	13559	11266	2561	13827	10730	2360	13900	278	46	324	11003	2516	13524	258	45	303	26
Edmonton General	371	69	320	33	353	13750	2415	16165	14070	2448	16518	13537	2672	15929	215	29	244	13752	2391	16143	318	57	375	33
Edmonton Misericordia	342	60	286	40	326	11778	2158	14136	12264	2198	14462	11804	2116	13920	220	40	260	12024	2156	14183	240	42	282	18
Edmonton Royal Alex	654	155	552	119	671	22982	5611	28593	23534	5770	29264	22585	5560	28145	461	67	528	23046	5627	28673	488	103	591	56
Edmonton University	1005	75	709	39	748	20195	2036	22231	20904	2075	22979	19575	2008	21581	564	33	601	20143	2039	22182	761	36	797	33
Lethbridge Municipal	192	38	146	17	163	5331	939	6270	5777	956	6333	5715	933	6648	115	8	123	5300	941	6271	147	15	162	6
Medicine Hat	134	14	114	14	128	5740	874	6614	5968	846	6814	115	18	133	5740	874	6614	115	18	6614	115	18	148	6
TOTAL	4066	636	3084	376	3460	121065	22155	143220	124149	22531	146680	118315	21798	140117	2784	336	3420	121193	22134	143237	2916	397	3443	232
GRAND TOTAL	7512	1471	5263	653	5916	247248	36749	283997	255321	37432	299923	242636	36194	278893	4511	552	5093	271777	38746	289923	5344	656	6030	398

\* Closed in June 1959

\*\* Situated in Saskatchewan but partly owned by Alberta.

The actual rated capacity is 65 beds and 12 bassinets.



## DIVISION OF HOSPITAL AND MEDICAL SERVICES

TABLE 33: - DISTRIBUTION OF PATIENT DAYS DURING THE YEAR, BY TYPE OF ACCOMMODATION CHANGED, AVERAGE SIXTY AND OCCUPANCY, 1975

Hospital	Rated Capacity as at December 31,		Patient Days During Year					Patient Days of Separated Patients During Year		Adults & Children Separations	Average Star of Adults and Children Separations	Occupancy Based on Rated Bed Capacity	
	Beds and Cots	Basis-nets	Adults & Children			Total	Newborn	Adults & Children					Newborn
			Standard Ward	Semi-Private	Private			Adults Children					
1 - 29 Beds	20	9	5339	--	--	5339	677	5249	797	6.6	73.1		
Beaverledge	16	7	3116	--	12	3165	274	3123	514	6.1	54.2		
Bentley	21	5	3957	--	--	3957	466	3977	496	8.0	51.6		
Berwyn	13	5	3628	--	37	3665	533	3578	634	5.6	77.2		
Bonnyville K.D.P.	20	8	3932	3	107	4039	495	3716	568	6.5	63.9		
Camrose	12	4	2971	2	8	2981	310	3023	492	6.1	68.1		
Carstairs	14	3	3545	--	--	3545	426	3545	426	5.6	66.7		
Carmichael	25	8	6570	218	162L	7912	676	7692	1371	5.6	96.7		
Cesari	9	3	2543	--	--	2543	205	2297	295	7.8	77.4		
Coaldale	13	5	5415	--	44	4249	661	5378	778	6.9	115.0		
Cold Lake	27	8	7321	--	--	7321	1565	7268	1316	5.5	74.3		
Consort	22	8	4080	--	--	4080	441	3536	672	5.3	50.8		
Coronation	13	3	4282	--	15	4297	426	4336	519	3.4	65.4		
Daysland	22	5	7917	--	244	8161	680	8110	1006	7.8	101.6		
Devon	7	4	2898	--	--	2898	183	2904	635	4.6	113.4		
Drayton Valley	20	8	7208	--	--	7208	1109	7029	1690	4.2	98.7		
Edenville	29	5	6177	--	--	6177	423	6132	423	6.6	53.4		
Elmhurst	16	6	2663	--	--	2663	349	2425	250	9.7	45.6		
Empress	23	4	2071	637	26	2734	551	2717	294	9.2	32.6		
Glenora	9	7	2298	--	--	2298	182	2297	455	4.9	73.7		
Hadley	20	6	5848	15	40	5903	448	5438	690	8.9	80.9		
Hepburn	10	4	2759	--	--	2759	236	2838	356	8.1	75.6		
Innisfail	29	8	10557	--	--	10557	1056	10499	1073	7.1	99.7		
Islay	13	4	2755	--	--	2755	120	2676	260	10.3	58.1		
Jasper	26	8	5424	6	90	5520	1434	5505	748	7.4	58.2		
Killam	27	6	7298	64	193	7535	879	7242	1356	5.5	76.5		
Kilmory	27	9	5817	261	246	6324	707	6281	966	5.1	76.1		
Marble	15	8	4095	--	--	4095	3973	4916	705	9.3	69.9		
Manning	15	4	3825	--	--	3825	465	3973	435	4.9	73.7		
Marmville	20	8	6114	--	--	6114	778	6282	1144	5.4	83.8		
Mayerthorpe	(6)	--	1337	--	--	1337	111	1931	166	11.6	---		
McNeal	21	4	4129	461	201	4791	534	4981	732	6.5	62.5		
McMurray	13	4	4812	2	128	4972	314	4992	696	7.2	75.7		
Mundare	24	8	5786	--	--	5786	677	5766	990	7.4	70.7		
Neyburn	17	5	5086	--	--	5086	677	5766	990	7.4	70.7		
Oyen	17	5	5086	--	--	5086	677	5766	990	7.4	70.7		
Prevost	26	6	6819	--	--	6819	862	7044	875	9.7	71.0		
Radway	14	6	4001	--	--	4001	548	3921	561	6.8	78.3		
Rainey	18	5	5926	--	376	5902	588	5907	895	6.6	89.9		
Raymond	19	8	5945	--	--	5945	1083	5907	1111	13.75	129.0		
Rocky Lake	15	5	4148	--	102	4250	595	4132	636	6.5	77.6		
Smoky Lake	15	5	4148	--	102	4250	595	4132	636	6.5	77.6		
Three Hills	25	10	6785	--	--	6785	1216	6748	1108	8.0	74.4		
Turner Valley	22	6	6599	--	6	6605	270	6221	543	11.5	42.3		
Ylva	14	3	3828	--	--	3828	758	3957	532	7.3	74.9		
Willington	13	3	4966	--	115	5081	502	5080	919	6.2	107.1		
TOTAL	795	252	215241	1706	3614	220561	25624	217931	32532	6.7	76.2		

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Hospital	Rated Capacity as at December 31.		Patient Days During Year					Patient Days of Separated Patients During Year		Average Stay of Adults and Children Separations	Occupancy Based on Rated Bed Capacity
	Beds & Cots	Beds - nets	Adults & Children			Total	Newborn	Adults & Children	Newborn		
			Standard Ward	Semi-Private	Private						
30 - 99 Beds											
Athabasca	42	13	10633	--	--	10633	11485	10772	11480	2074	69.4
Barrf	46	11	8648	1535	1148	11631	812	11945	799	1505	69.3
Barrhead	60	14	17942	33	967	18942	1773	18760	1806	2622	86.5
Bassano	30	7	6558	--	--	6558	692	6920	690	766	63.3
Bismore	72	6	14738	24	1252	16014	650	15990	649	1410	60.9
Bonnyville St. Louis	52	12	9247	909	865	11021	936	10933	925	1162	58.1
Broomfield	64	13	15987	--	--	16000	1760	15044	1303	1504	68.5
Calgary Grace	44	34	5947	2762	405	9114	7466	9041	7428	1596	56.7
Cardston	40	14	7557	--	--	7557	1001	7557	990	1291	51.8
Clareholm	42	6	3210	3172	2565	8947	781	8957	769	1069	58.4
Diaboury	32	11	9685	--	25	9710	993	9719	995	1224	83.1
Edson	37	5	9539	94	382	9915	1818	9765	1825	1481	72.7
Elk Point	51	9	16528	15	21	16543	1316	16298	1326	2483	88.8
Fairview	32	10	12081	--	--	12117	1557	12158	1514	1625	75.5
Fr. McLeod	32	11	8802	--	19	8821	1014	8781	1056	1120	74.8
Fr. Vermillion	32	7	7259	27	285	7571	956	7718	945	939	64.8
Galahad	40	9	13950	--	1066	15056	1706	14038	1694	1523	72.3
Hanna	53	12	13138	--	--	13138	1586	12973	1598	1515	71.6
High Prairie	41	12	19017	300	780	20097	1806	19945	1817	2744	83.3
High River	64	14	14990	--	--	14990	1663	13961	1655	1802	73.7
Lacombe	50	16	13128	--	1234	14362	2023	14085	2021	1966	78.7
Lac La Biche	57	24	17076	252	230	17543	1560	17496	1558	2411	73.3
Lloydminster	42	6	13027	--	604	13631	1610	13606	1599	1349	70.4
McLennan	53	14	14038	2132	484	16654	1705	16688	1698	2055	81.1
Olds	41	9	13106	--	422	13528	1450	13462	1406	1408	74.4
Peace River	37	9	16837	--	--	16837	1837	16850	1840	1957	86.6
Pincher Creek	64	6	10522	699	1221	12442	1488	12338	1499	1765	70.0
Poncha	48	11	12331	--	--	12331	1447	12328	1447	1831	67.7
Rocky Mt. House	35	9	7933	185	132	8250	1072	7727	1042	1062	73.3
Spirit River	44	14	11594	2116	851	14361	927	13866	953	1563	89.4
Stettler	56	8	16998	--	--	16998	1851	17092	1855	1869	91.1
St. Paul	37	16	14975	1373	739	17087	2353	17043	2347	2310	91.1
Taber	68	11	18297	--	120	18417	2524	18519	2495	2424	74.6
Tofield	31	9	10280	--	--	10280	801	10257	808	1502	6.8
Trochu	31	6	4759	468	827	6054	440	4911	440	547	9.0
Two Hills	34	9	7192	--	--	7192	643	7774	653	1111	52.0
Vegreville	85	14	15967	4123	2324	22164	2386	22326	2386	2396	72.2
Vermillion	54	14	9351	--	--	9351	1389	9026	1388	1514	67.4
Viking	35	9	7893	--	--	7893	1060	7899	1073	1248	61.8
Vulcan	37	7	8556	--	--	8556	1050	8553	1052	1444	53.4
Wainwright	43	14	13590	--	--	13590	1653	13537	1628	1690	77.4
Westlock	75	18	19195	2705	972	22872	2301	23392	2106	3279	83.6
Wetaskiwin	60	12	14790	457	877	16004	2301	15905	2308	2536	73.1
TOTAL	2028	495	508831	23331	21050	553212	65298	543374	65176	73291	75.8

DISTRIBUTION OF PATIENT DAYS DURING THE YEAR, BY TYPE OF ACCOMMODATION CHARGED  
AVERAGE STAY AND OCCUPANCY, 1959

Hospital	Rated Capacity as at December 31.		Patient Days During Year					Patient Days of Separated Patients During Year		Adults & Children Separations	Average Stay of Adults and Children Separations	Occupancy Based on Rated Bed Capacity
	Beds & Cribbs	Basic-nets	Adults & Children				Newborn	Adults & Children	Newborn			
			Standard Ward	Semi-Private	Private	Total						
90 - 179 Beds												
Calgary Children's	128	--	30446	--	--	30446	--	29089	--	2147	13.5	66.2
Camrose	98	22	22193	3115	3466	28974	3416	28372	3431	3562	7.2	81.0
Drumheller	94	20	22523	--	--	22523	2157	21230	2171	2030	10.5	65.7
Grande Prairie	103	16	31386	--	24.8	31634	3950	30827	3933	4219	7.3	84.5
Lamont	91	10	14914	4782	4472	24168	1050	20845	1052	2365	7.3	72.8
Red Deer	104	30	27335	4079	1240	32704	5980	32577	5925	5028	6.5	86.2
TOTAL	623	98	144852	12176	9426	170454	16553	162930	16517	20531	8.0	75.9
180 Beds & Over												
Calgary General	736	110	177565	46949	7329	331843	39519	231611	33516	23331	9.8	96.4
Calgary Holy Cross	342	54	77921	14739	11286	105106	17125	103523	16973	11008	9.4	84.5
Edmonton General	371	69	92734	23247	19847	126626	17514	126629	17332	13752	9.2	93.4
Edmonton St. Michael's	442	60	173663	32433	15125	110623	18159	110920	18121	12024	9.2	88.7
Edmonton Royal Alex	654	155	171711	23944	19532	212067	43643	210104	43595	23046	9.1	83.8
Edmonton University	1095	75	253522	47155	10628	311305	16963	305604	16961	19422	15.7**	84.9
Lethbridge Municipal	192	58	46513	9748	3791	60452	7540	60338	7550	5390	10.3	86.3
Lethbridge St. Michael's	191	18	30678	19023	5591	55282	3789	57840	3754	5022	10.7	83.7
Medicine Hat	243	37	47079	2176	3175	52430	6019	51666	6050	6967	8.5	59.1
TOTAL	4366	636	972298	225162	63274	1265734	161231	1260235	160957	120392	10.5	85.3
GRAND TOTAL	7512	1471	1845222	262375	102364	2209961	264756	2139370	269225	246156	8.9	81.0

\* Closed in June 1959

\*\* Includes Pello patients.

TABLE 34: - DISTRIBUTION OF PATIENT DAYS BY RESIDENTIALITY OF PAYMENT  
1959

Hospital	Adults and Children Days					Modern Days		
	Provincial Plan	Federal Government	Workmen's Compensation Board	Non- Residents	Non- Active	Total	Insured	Un-Insured
1 - 29 Beds								
Beaverbrook	4789	-	87	463	-	5339	590	37
Baker	3195	2	50	8	-	3197	274	-
Berkeley	3823	-	77	1	26	3957	466	-
Bonnyville K.H.P.	3605	-	51	9	-	3665	526	7
Box Island	4022	4	26	40	-	4092	495	-
Camrose	2785	-	140	56	-	2981	302	8
Carmanagay	3081	3	3	8	-	3095	352	-
Castor	2740	1	97	15	-	2855	676	-
Chapleau	2511	1	1	-	-	2513	205	-
Coaldale	5599	6	9	145	-	5759	667	14
Cold Lake	6410	58	263	590	-	7321	1397	178
Consort	3768	-	87	25	-	4080	435	6
Coronation	4250	-	17	30	-	4297	426	-
Daysland	3026	-	70	55	-	3151	382	8
Devon	2858	-	63	27	-	2948	185	-
Drayton Valley	6718	8	403	79	-	7208	1389	20
Edmonton	6101	2	72	72	-	6177	423	-
Elkhora	2628	-	33	2	-	2663	347	-
Empress	2636	-	123	175	-	2734	503	43
Glendon	2286	-	10	2	-	2298	192	-
Hardisty	5779	-	86	38	-	5903	660	8
Hinton	2543	-	13	203	-	2759	229	5
Indisfall	10258	7	231	61	-	10557	1036	-
Islay	2742	-	-	9	4	2755	120	-
Jasper	4451	13	486	570	-	5520	1328	106
Killam	7084	-	26	25	-	7135	979	-
Kerath	6247	-	11	26	-	6284	670	3
Kermansack	4977	-	118	36	-	4995	707	-
Kerrieville	3918	-	3	4	-	3825	465	-
Kerthorpe	5308	10	743	53	-	6114	778	-
Mercoal	1252	8	77	-	-	1337	111	-
McKurray	4447	12	289	43	-	4791	524	-
Mudare	4598	-	27	7	-	4652	334	7
Neyman	2812	-	28	3	-	2868	314	-
Oyen	4321	7	54	114	-	4536	557	20
Provost	6591	-	98	170	-	6859	938	24
Radway	3993	-	7	1	-	4001	548	-
Raymond	5302	-	82	19	-	5902	581	7
Rimbey	8804	3	128	11	-	8946	1053	-
Smoky Lake	4245	-	5	-	-	4350	595	-
Three Hills	6533	-	85	163	4	6781	1148	68
Turner Valley	6162	2	223	218	-	6605	270	-
Wilna	3910	-	11	6	1	3928	758	-
Willington	5046	-	14	31	-	5081	495	7
TOTAL	212347	150	4509	3570	35	220561	24998	626

TOTAL

Hospital	Adults and Children Days				Newborn Days				
	Provincial Plan	Federal Government	Women's Commission Board	Non-Residents	Non-Active	Total	Insured	Un-Insured	Total
30 - 99 Beds									
Albion	12662	10	336	25	-	10653	1485	-	1485
Barrie	9776	51	979	771	54	11631	789	24	1822
Barhead	17743	34	1066	99	-	18942	1763	10	1773
Bassano	5941	-	390	27	-	6358	692	-	692
Blairmore	11951	-	843	220	-	16014	541	9	650
Bonnyville St. Louis	10756	-	72	192	1	11021	936	-	936
Bromley Grace	13476	-	332	192	-	14000	1754	6	1760
Calgary	8914	-	-	200	-	9114	720	258	1666
Carleton	7374	-	-	153	30	7557	978	23	1001
Clareholm	8414	208	130	145	-	8947	761	20	781
Didsbury	9594	31	42	41	2	9710	993	-	993
Edson	9012	24	692	87	-	9915	1311	7	1318
Edgmont	16453	-	37	3	-	16598	1346	-	1346
Fairview	11407	7	550	153	-	12117	1546	11	1557
Fr. McLeod	9540	-	44	237	-	9821	1014	-	1014
Fr. Vermilion	7451	-	84	6	-	7571	956	-	956
Galahad	10463	-	66	27	-	10556	706	-	706
Hanna	12411	-	130	67	-	12598	1579	7	1586
High Prairie	13822	13	530	92	-	14397	1827	179	1904
High River	14555	-	135	243	2	14990	1644	19	1663
Lacombe	14121	4	144	93	-	14362	2023	-	2023
Lac La Biche	17930	-	454	63	1	17543	1553	7	1560
Lloydminster	13528	-	78	24	3	13631	1610	-	1610
McLean	16220	39	348	44	3	16654	1700	5	1705
Olds	10908	9	173	53	-	10953	1414	16	1430
Peace River	15920	199	589	119	-	16877	1377	-	1377
Panther Creek	12055	9	251	127	-	12442	1466	22	1488
Ponoka	11976	23	264	68	-	12331	1406	13	1419
Rocky Mt. House	7629	-	467	154	-	8250	1067	5	1072
Spirit River	13942	77	253	84	-	14361	915	12	927
Stettler	16352	-	558	88	-	16998	1835	16	1851
St. Paul	16932	7	103	40	-	17087	2352	1	2353
Taber	13019	68	202	128	-	13417	2520	4	2524
Tofield	10374	2	149	55	-	10580	801	-	801
Trochu	5999	7	37	11	-	6054	440	-	440
Two Hills	7051	-	108	23	-	7192	643	-	643
Vernonville	21983	92	277	62	-	22441	1260	-	1260
Vermilion	9226	17	72	36	-	9351	1331	8	1339
Viking	7700	28	154	11	-	7893	1060	-	1060
Vulcan	8469	-	58	29	-	8556	1050	-	1050
Westport	13004	249	217	120	-	13950	1639	14	1653
Westlock	22015	35	519	143	5	22872	2094	7	2101
Wetaskiwin	15591	19	292	102	-	16004	2289	12	2301
TOTAL	534725	1262	12440	4637	98	553212	64983	715	65698

1959



TABLE 35: - DISTRIBUTION OF SEPARATED CASES AND DAYS  
AND THEIR RELATED LENGTH OF STAY  
BY SIZE OF HOSPITAL, 1958 & 1959

Length of Stay in Days	Cases							Days						
	1958 Adults & Children	Adults & Children by Bed Size of Hospitals, 1959					New- born 1959	1958 Adults & Children	Adults & Children by Bed Size of Hospital, 1959					New- born 1959
		Total	1 - 29	30-89	90-179	180 plus			Total	1 - 29	30-89	90-179	180 plus	
1	20010	21180	4381	7930	2258	6611	393	20010	21180	4381	7930	2258	6611	393
2	29606	29820	4578	8860	3934	12448	86	59212	59640	9156	17720	7868	24896	172
3	23583	23131	3903	7757	2100	9371	287	70749	69393	11709	23271	6300	23113	861
4	20493	21368	3263	6952	1583	9570	2749	81972	85472	13052	27808	6332	38280	10996
5	20696	22301	2800	6982	1518	11301	6437	103480	111005	14000	32910	7590	56505	32435
6	20777	21839	2575	6207	1595	11462	8934	124662	131034	15450	37242	9570	68772	53604
7	20641	20893	2411	6537	1419	10526	8186	144487	146251	16877	45759	9933	73682	57302
8	15199	14996	1854	4691	1222	7229	3941	121592	119763	14832	37528	9776	57832	31528
9	10735	10831	1360	3439	848	5184	1611	96615	97479	12240	30951	7632	46656	14499
10	8218	8230	1042	2388	599	4201	887	82180	82300	10420	23880	5990	42010	8870
11 - 14	19391	19776	2002	5194	1205	11375	1330	237725	242890	24347	63483	14780	140280	16187
15 - 19	11225	11780	976	2781	639	7334	747	187607	196593	16224	46331	11476	122562	12549
20 - 29	9107	10050	747	2092	619	6592	683	215196	237443	17532	49359	14696	155806	16104
30 - 59	6301	7144	461	1403	404	4876	423	249112	284091	18304	55647	16216	193924	12723
60 & Over	2145	2497	179	478	258	1582	---	255982	277886	19257	48555	32513	177561	---
TOTAL	238127	245736	32532	73291	20251	119662	36744	2050581	2162625	217831	548374	162930	1233490	268223

TABLE 36: SEPARATED ADULTS & CHILDREN CASES AND DAYS  
BY AGE GROUP AND SEX, 1958 - 1959

Age Group in Years	Cases				Days			
	1958	1959	By Sex, 1959		1958	1959	By Sex, 1959	
			Male	Female			Male	Female
Less than 1	9223	10333	6014	4319	77346	90655	52353	38302
1 - 4	18311	19267	10754	8513	107190	112661	62703	49958
5 - 9	17174	17469	9340	8129	92201	92453	49173	43280
10 - 19	25038	25995	10380	15605	163054	163395	66834	96561
20 - 29	48399	49451	9819	39602	321623	328501	76267	252234
30 - 39	35256	34757	9389	25368	257164	263847	79894	183953
40 - 44	11921	12706	4434	8272	99362	104402	40067	64335
45 - 49	10801	11083	4699	6384	97052	102414	44844	57570
50 - 54	10112	10261	4776	5485	100492	109039	52984	56055
55 - 59	9119	9806	4956	4850	100760	113871	59625	54246
60 - 64	8571	8948	4634	4314	108214	114361	61358	53003
65 - 69	9512	9342	5176	4166	129358	129494	74754	54740
70 - 74	9798	10315	5771	4544	144704	157162	88695	68467
75 & Over	14407	15426	8698	6728	247020	272208	151795	120413
N. A.	485	577	278	299	5041	8162	4946	3216
Total	238127	245736	99158	146578	2050581	2162625	966292	1196333

TABLE 37(a): ADULTS AND CHILDREN SEPARATED CASES AND DAYS  
BY MONTH OF SEPARATION, 1959  
(a) Patients Ever Separated

Age in Years	Length of Stay in Days									
	Total	1	2	3	4 - 9	10 - 19	20 - 29	30 - 59	60 & Over	
<b>Both Sexes</b>										
0 - 9	295769	4897	22482	17475	105341	64153	25178	26541	28702	
10 - 19	163395	3156	8428	9507	72130	39572	10555	12270	15777	
20 - 29	328501	4302	8776	12174	151614	60650	15986	13786	22734	
30 - 44	348269	4185	9602	13721	148637	97742	32054	36427	25871	
45 - 64	435685	2978	6844	10560	94118	131031	65430	74956	53738	
65 - 74	286656	981	2032	3513	43914	75601	47365	69579	52771	
75 & Over	272208	620	1358	2265	32106	61549	40959	58401	74950	
No Age	8162	61	118	168	1419	1115	807	1151	5343	
TOTAL	2162625	21130	59640	69393	691209	521783	237443	284091	277886	
<b>Males</b>										
0 - 9	164229	2727	12306	9552	59408	36192	14778	14742	14824	
10 - 19	66834	1579	3846	4044	23410	13673	5762	6347	8173	
20 - 29	78267	1456	2634	3762	23167	13144	6530	7571	13583	
30 - 44	118963	1666	3254	4476	33712	31564	13163	15811	16285	
45 - 64	128801	1622	3176	4596	44476	48908	33000	41875	30560	
65 - 74	163449	616	1186	1983	23973	41341	26532	35822	32236	
75 & Over	151795	367	830	1344	17650	34561	29334	33884	37745	
No Age	4946	33	48	96	542	614	543	695	2374	
TOTAL	946292	10046	27280	29853	225347	231977	123442	156327	157780	
<b>Females</b>										
0 - 9	131540	2170	10176	7923	45933	27941	10700	11799	13878	
10 - 19	96561	1577	4582	5465	48720	24999	4793	5923	7654	
20 - 29	252234	2846	6142	8412	163847	41376	9865	6495	9151	
30 - 44	248288	2519	6348	9255	114895	66178	18891	20616	9686	
45 - 64	220974	1356	3668	5864	97674	72123	31330	33041	23178	
65 - 74	123207	365	946	1530	19841	34260	21133	24697	29515	
75 & Over	120013	253	528	921	14476	28988	17525	24317	35205	
No Age	3116	28	70	72	876	501	264	436	969	
TOTAL	1196333	11114	32360	39540	464852	286786	114001	127564	120106	

TABLE 37(b): ADULT AND CHILDREN SEPARATED CASES AND DAYS  
BY LENGTH OF STAY, SEX AND AGE, 1959  
(b) Separated Cases

Age in Years	Length of Stay in Days								
	Total	1	2	3	4 - 9	10 - 19	20 - 29	30 - 59	60 & Over
Both Sexes									
0 - 9	47069	4897	11241	5825	18139	4976	1770	664	257
10 - 19	25995	3156	4214	3169	12136	2021	448	304	147
20 - 29	49451	4302	4384	4058	30709	4842	644	352	156
30 - 44	47463	4185	4801	4777	23756	7631	1373	916	224
45 - 64	40998	2978	3422	3520	15219	9768	2766	1896	599
65 - 74	19657	981	1016	1171	6729	5546	1998	1525	491
75 & Over	15426	620	679	755	5008	4521	1717	1453	663
No Age	577	61	59	56	232	81	34	29	25
TOTAL	245736	21180	29820	23131	112123	39786	10050	7144	2497
Males									
0 - 9	26108	2727	6153	3184	10159	2816	616	367	136
10 - 19	13390	1579	1923	1348	3989	1366	245	157	83
20 - 29	9849	1486	1317	1254	3882	1393	265	183	99
30 - 44	13823	1666	1627	1492	5543	2006	562	401	126
45 - 64	19065	1622	1838	1722	7149	4399	1413	1054	398
65 - 74	10947	616	593	661	3766	3020	1104	900	287
75 & Over	8698	367	415	448	2752	2526	979	847	364
No Age	278	33	24	32	87	44	23	18	17
TOTAL	99158	10066	13640	9951	37277	17670	5207	3927	1420
Females									
0 - 9	20961	2170	5088	2641	8030	2160	454	297	121
10 - 19	12605	1577	2291	1821	8147	1355	203	147	64
20 - 29	39602	2846	3071	2804	20827	3449	379	169	57
30 - 44	33640	2519	3174	3085	13213	5225	811	515	98
45 - 64	21333	1356	1834	1988	8070	5369	1353	842	221
65 - 74	9710	365	423	510	3163	2526	894	635	204
75 & Over	6728	253	264	307	2256	1995	738	611	304
No Age	299	28	33	24	145	37	11	11	8
TOTAL	146578	14114	16130	13180	70451	22116	4843	3217	1077







TABLE 38: DISCHARGED PATIENTS &amp; DAYS BY MARITAL STATUS, SEX AND AGE 1959

Age in Years	Total			Single			Married*			Other**	
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Female
Separated Cases During 1959											
0 - 14	57922	31654	26268	57922	31654	26268	---	---	---	---	---
15 - 24	40475	9769	30706	13400	2971	10429	22996	1134	22562	79	71
25 - 44	71581	18747	52834	6329	4262	2067	64449	14327	50122	903	645
45 - 64	40098	19065	21033	4255	2670	1585	32403	15604	16799	3440	2619
65 & Over	35083	19645	15438	3029	2629	1400	19091	12132	6959	12963	879
No Age	577	278	299	181	87	94	280	153	127	116	78
TOTAL	245736	99158	146578	88116	49629	38487	140219	43650	96569	17401	11522
Days of Separated Cases Since Admission											
0 - 14	364096	198590	165506	364096	198590	165506	---	---	---	---	---
15 - 24	288718	72695	186223	112142	63386	48756	146071	9054	137017	553	450
25 - 44	533100	156206	376894	64135	42618	21517	460997	111390	349547	2198	9530
45 - 64	136645	218811	220874	53098	36687	14411	343073	169077	173996	11047	32467
65 & Over	518662	315244	203418	60815	55925	7890	269780	175306	94474	228269	11256
No Age	8162	4946	3216	2383	1460	923	4556	3097	1459	1223	834
TOTAL	2166625	965292	1196333	656669	397666	259003	1224417	467924	756493	281539	180837
Estimated Population											
0 - 14	412632	211472	201160	412632	211472	201160	---	---	---	---	---
15 - 24	180762	92007	88755	133478	77936	55542	47054	14039	33015	230	198
25 - 44	558161	152450	179711	51555	36490	15165	299153	144739	154414	5353	4132
45 - 64	203437	111557	91880	19800	15160	4740	166753	92152	74601	16784	12559
65 & Over	90028	50977	39051	9428	7653	1775	51884	33442	18442	26796	19094
TOTAL	1243000	648463	594537	626793	348691	278102	564844	284372	280472	51363	35963

\* Includes Separated and Common-Law

\*\* Includes Divorced and Widowed

TOTAL

NUMBER OF FULL-TIME NURSING STAFF EMPLOYED IN GENERAL HOSPITAL  
AS AT DECEMBER 31, 1959

Hospital	Directors and Supervisors										Graduate Nurses				Student Nurses	Nursing Aides			Other Nursing	Total
	Bed Capacity	Administration	Education	Operating Room	Recovery Room	Obstetrics	Paediatrics	Physiatry	Out-patient Ambulatory	Other	Total	Head Nurses	General Duty	Other Graduate		Nursing Aides				
																Qual-ified	Trainees	Orderlies		
30 - 39 Beds																				
Albion	42	1	-	-	-	-	-	-	-	-	1	10	-	-	-	5	-	-	3	20
Barre	46	1	-	-	-	-	-	-	-	-	1	15	-	-	-	7	2	1	4	21
Blairmore	40	1	-	-	-	-	-	-	-	-	2	6	-	-	-	4	-	-	-	11
Blairmore	72	2	-	1	-	-	-	-	-	-	3	12	-	-	-	8	1	1	-	24
Bonnyville St. Louis	52	-	-	1	-	1	-	-	-	1	3	3	-	-	-	6	-	1	12	25
Brooks	64	1	-	-	-	-	-	-	-	-	1	17	-	-	-	10	6	-	-	37
Calgary Grace	44	1	-	1	1	3	-	-	3	-	3	19	-	2	-	3	7	-	-	41
Calgary Grace	40	1	-	1	-	1	-	-	-	-	2	12	-	-	-	7	1	-	-	23
Clareholm	42	1	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	21
Didsbury	32	1	-	-	-	-	-	-	-	-	2	8	-	-	-	4	-	8	22	
Edson	37	-	-	1	-	1	-	-	-	-	2	6	-	-	-	4	-	1	15	
Elk Point	51	1	-	-	-	-	-	-	-	-	1	8	-	-	-	9	-	14	33	
Fairview	32	1	-	-	-	-	-	-	-	-	2	10	-	-	-	9	-	6	27	
Ft. Hopedale	32	2	-	-	-	1	-	-	-	5	-	9	-	-	-	-	-	-	23	
Ft. Vermilion	32	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	11	
Galahad	40	1	-	-	-	-	-	-	-	-	1	4	-	-	-	-	-	9	31	
Hanna	53	1	-	1	1	1	-	-	-	-	2	5	-	-	-	-	-	7	27	
High Prairie	41	2	-	-	-	-	-	-	-	-	3	7	-	-	-	12	6	15	29	
High River	64	2	-	1	-	1	-	-	2	-	6	15	-	-	-	11	2	-	34	
Lacombe	50	1	-	-	-	-	-	-	-	-	1	17	-	-	-	-	-	-	31	
Lac La Biche	57	-	-	1	-	1	-	-	2	-	2	4	-	-	-	1	-	11	26	
McLennan	53	-	-	1	-	-	-	-	-	-	1	5	-	-	-	3	4	20	22	
Olde	41	1	-	-	-	-	-	-	-	-	1	8	-	-	-	6	-	1	21	
Peace River	57	1	-	-	1	-	-	-	-	-	3	6	-	-	-	8	-	-	19	
Pincher Creek	64	-	-	-	-	-	-	-	3	-	-	7	-	-	-	5	5	9	31	
Ponoka	48	-	-	-	-	-	-	-	-	-	-	12	-	-	-	10	4	18	32	
Rocky Mt. House	35	1	-	-	-	-	-	-	-	-	2	5	-	-	-	3	-	5	15	
Spirit River	44	-	-	-	-	1	-	-	-	-	1	6	1	-	-	6	-	-	18	
Stettler	56	1	-	-	-	-	-	-	-	-	1	13	2	-	-	7	-	15	39	
St. Paul	37	1	-	1	-	1	-	-	-	-	-	6	-	-	-	3	-	17	31	
Taber	48	-	-	2	-	-	-	-	-	-	4	20	1	-	-	17	1	-	48	
Tofield	31	1	-	-	-	-	-	-	-	-	1	9	-	-	-	4	-	-	14	
Trochu	31	1	-	-	-	-	-	-	-	-	1	5	-	-	-	4	-	2	14	
Two Hills	34	1	-	-	-	-	-	-	-	-	1	6	-	-	-	5	-	1	13	
Vegreville	85	3	4	1	-	1	-	-	-	-	9	10	-	39	3	-	1	10	77	
Vegreville	84	1	-	1	-	-	-	-	-	-	2	7	-	-	-	8	-	-	19	
Viking	54	1	-	-	-	-	-	-	-	-	1	9	-	-	-	5	4	3	21	
Vulcan	37	1	-	1	-	-	-	-	-	-	2	7	-	-	-	8	-	-	17	
Wainwright	48	1	-	1	-	-	-	-	-	-	1	11	-	-	-	4	-	-	26	
Westlock	75	1	-	-	-	1	-	-	1	1	3	8	-	-	-	5	-	11	32	
Wetaskiwin	60	1	-	-	-	-	-	-	-	-	1	19	-	-	-	7	3	-	30	
TOTAL	1986	40	4	23	3	16	2	-	3	12	103	41	374	6	39	233	17	198	1068	

NUMBER OF FULL-TIME NURSING STAFF EMPLOYED IN GENERAL HOSPITAL  
AS AT DECEMBER 31, 1959

Hospital	Directors and Supervisors											Graduate Nurses			Student Nurses	Nursing Aides		Orderlies	Other Nursing	Total
	Bed Capacity	Administration	Education	Operating Room	Recovery Room	Obstetrics	Paediatrics	Physician	Out-Patient & Emergency	Other	Total	Head Nurses	General Duty	Other Graduate		Qual-ified	Trainee			
90 - 179 Beds																				
Calgary Children's	128	1	1	1	-	-	-	-	1	2	6	3	24	4	-	27	3	4	-	71
Calgary Holy Cross	98	-	-	-	-	-	-	-	-	5	3	-	22	-	-	15	6	3	20	69
Drumheller	94	1	-	2	-	-	-	-	-	2	3	-	21	-	-	16	-	3	-	49
Grande Prairie	108	2	-	1	-	-	-	-	-	3	3	6	31	-	-	20	-	3	12	75
Lacombe	91	4	2	1	-	1	-	-	-	1	9	2	15	1	37	1	3	1	1	70
Red Deer	104	2	-	-	-	-	-	-	-	-	2	6	40	-	-	30	-	1	-	79
TOTAL	623	10	3	5	-	3	-	-	1	10	32	17	153	5	37	109	12	15	33	433
180 Beds & Over																				
Calgary General	736	12	1	1	-	3	-	-	-	-	17	24	283	54	254	129	-	39	69	909
Calgary Holy Cross	342	2	2	1	-	1	-	-	1	4	22	35	104	12	200	56	-	17	-	436
Edmonton General	371	6	14	1	-	1	1	-	-	2	27	38	124	13	177	30	-	15	65	476
Edmonton Miskiwicoria	342	5	1	1	-	2	-	-	1	7	16	16	107	-	81	38	-	14	98	373
Edmonton Royal Alex	654	6	18	1	-	5	1	-	1	-	32	40	133	-	231	103	-	42	40	626
Edmonton University	1005	13	19	2	-	2	2	-	2	2	42	67	178	-	342	82	18	81	136	946
Lethbridge Municipal	192	5	7	3	1	2	1	-	2	3	24	12	52	1	86	22	-	11	47	225
Lethbridge St. Michael's	231	3	2	1	-	1	-	-	-	7	7	5	38	13	71	8	-	6	32	180
Medicine Hat	243	4	9	1	-	1	-	-	-	2	17	10	59	-	61	21	-	9	51	228
TOTAL	4066	56	73	13	1	18	5	-	7	21	194	247	1078	93	1543	494	13	234	493	4399
GRAND TOTAL	7470	143	80	42	4	37	7	-	11	43	372	314	1779	106	1619	914	96	269	312	6281

TABLE 40: - DISTRIBUTION OF ACCUMULATED HOURS OF WORK OF ALL HOSPITAL PERSONNEL IN NURSING ADMINISTRATION,  
DIRECT CARE OF PATIENTS AND SPECIAL SERVICES DURING 1959

Hospital	Un-dis-tributed	Nursing Admin-istration	Direct Care				Special Services							Total	
			Adults & Children	Newborn	Emergency	Out-Patients	Operating Room	Central Supply Room	Pharmacy	Delivery Room	Laboratory	Radiology	Physio-therapy		Other
1 - 29 Beds															
Beaverlodge	13794	620	9359	1164	--	--	--	365	--	--	405	1567	--	26589	
Bentley	--	1426	11502	360	--	--	--	295	420	263	192	150	--	15108	
Bonanza	--	723	16949	1257	--	--	--	614	--	114	546	21620	--	21620	
Bonnyville K.H.F.	342	2384	13023	959	--	--	--	843	375	862	204	985	--	15108	
Bow Island	--	2320	15564	--	--	--	--	1008	--	1008	1078	1008	--	21916	
Cammore	--	2222	6701	1271	--	--	--	152	411	116	54	--	--	11293	
Carmanway	--	2085	13470	536	--	474	--	708	121	257	63	70	--	17784	
Casitor	--	2200	28232	2017	--	--	--	1686	444	206	1348	1352	--	37465	
Cedar	--	2316	13476	316	--	--	--	182	92	79	91	182	--	11907	
Coaldale	--	2496	17717	669	--	--	--	399	730	180	1243	1243	--	25612	
Cold Lake	--	2041	31537	4269	--	--	--	183	108	306	1108	785	--	42620	
Consort	--	2271	19382	1323	--	--	--	194	315	256	--	315	--	23741	
Coronation	--	650	14670	5820	--	210	--	1742	190	1310	160	215	--	24777	
Daysland	--	2536	21071	1833	--	--	--	172	520	700	2190	2550	--	31752	
Devon	--	--	9632	75	--	--	--	90	--	50	1092	1092	--	12021	
Drayton Valley	--	2072	16705	4144	770	--	--	1075	--	1075	2072	2072	--	31115	
Eckville	--	1497	15570	1608	--	--	--	176	44	124	936	790	136	20831	
Elmira	--	900	15106	507	21	--	--	15	198	198	110	51	--	16993	
Emers	--	2493	9211	1102	--	548	--	661	400	255	1519	232	--	16792	
Glenora	--	615	14941	560	--	--	--	120	336	224	142	214	--	17436	
Hardisty	--	--	20013	1219	--	--	--	859	257	500	114	287	--	23463	
Hythe	--	2312	8493	2312	--	--	--	72	--	72	36	60	--	13417	
Innisfail	2040	105	34155	968	--	--	--	2352	--	--	1280	1332	--	42127	
Isley	--	3680	12208	382	--	50	--	44	--	46	--	192	--	13127	
Jasper	--	--	16290	986	--	--	--	659	--	922	--	--	--	22536	
Killar	--	4712	23484	368	--	--	--	642	1109	436	4027	1112	116	36471	
Macraeth	--	4265	4265	1422	--	181	--	427	--	208	955	781	--	46393	
Manning	--	1119	3650	930	--	375	--	368	--	100	156	450	--	12388	
Manville	--	625	13955	1395	--	--	--	200	--	118	200	200	--	15603	
Mayerthorpe	--	1828	22577	448	--	--	--	321	172	143	1010	1085	--	27584	
McMurray	--	3255	19713	1726	--	107	--	88	31	165	155	277	--	25862	
McMurray	--	1119	1119	376	--	--	--	397	182	262	788	464	--	14212	
Mundare	--	1023	21043	376	--	--	--	436	1163	198	738	1018	--	26590	
Oyen	--	1324	14930	2400	--	530	--	--	--	--	--	--	--	19334	
Provost	--	1497	22643	2907	--	--	--	1119	1324	499	1151	1150	--	32280	
Radium	--	--	9801	655	--	--	--	270	134	322	1116	1128	--	12560	
Ryegton	--	1764	14612	1764	--	--	--	1260	168	444	570	570	--	23332	
Saskatoon	--	2552	5107	5107	--	--	--	249	--	46	1152	1152	--	23128	
Seely Lake	--	2552	11602	2407	122	--	--	287	--	76	1152	1152	--	23128	
Three Hills	--	2079	27854	2410	112	--	--	748	120	588	309	108	--	15853	
Turner Valley	--	2048	30138	632	--	421	--	202	303	303	303	130	--	34390	
Wilna	--	13405	13405	1825	--	--	--	192	--	99	580	651	--	15986	
Willmington	--	1310	17208	505	--	--	--	97	232	135	--	--	--	20924	
TOTAL	16176	54955	749734	61975	1015	2971	21472	11599	6685	13253	29266	27546	336	1026983	

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DISTRIBUTION OF ACCUMULATED HOURS OF WORK OF ALL HOSPITAL PERSONNEL IN NURSING ADMINISTRATION, DIRECT CARE OF PATIENTS AND SPECIAL SERVICES DURING 1959

Hospital	Unins-tributed	Nursing Admin-istration	Direct Care			Special Services							Other	Total	
			Adults & Children	Newborn	Emergency	Out-Patients	Operating Room	Central Supply Room	Pharmacy	Delivery Room	Laboratory	Radiology			Physio-therapy
30 - 99 Beds															
Abthasaca	--	1141	37040	2143	--	82	414	847	413	494	861	1311	--	45166	
Barrick	--		32940	4936	240	--	2399	4598	360	1077	2478	1876	--	53410	
Barthard	--	4735	41828	4799	316	--	1943	1767	810	678	2796	2700	--	62292	
Bessano	--	1166	18546	1282	797	--	646	288	--	457	816	764	--	52077	
Blairmore	--	3280	40386	1731	--	--	2288	--	528	760	480	2336	--	72515	
Bonnyville St. Louis	2980	3181	48178	3668	66	115	4714	--	963	2916	2840	2896	--	92160	
Brooks	--	4608	70042	3586	--	--	4608	--	--	2304	4608	2304	--	88854	
Calgary Grace	--	2160	20838	2183	--	--	3206	4270	1206	12777	2739	--	--	55001	
Cardston	--	2477	34682	3352	--	2304	2304	--	2304	2304	--	--	--	46096	
Clareholm	--	2144	37520	1072	--	--	2144	--	--	1072	1072	1072	--	39717	
Didsbury	--	2576	46421	1560	--	--	1560	--	350	1560	1750	1750	--	42508	
Edson	--	1528	24966	4783	--	--	788	--	1875	1273	1760	1273	--	62208	
Elk Point	--	1931	51743	2040	--	296	1572	2496	--	996	1963	2004	--	62208	
Fairview	--	2477	51840	3456	--	--	3456	--	--	3456	--	--	--	55534	
Ft. McLeod	--	5710	43294	1038	98	--	2076	--	--	1038	200	2080	--	40689	
Ft. Vermillion	--	--	35908	2290	191	--	250	1500	200	100	125	125	--	36920	
Galahad	--	3060	28020	1469	--	--	2993	1728	794	390	1076	1081	--	65772	
Hanna	--	2936	46511	8635	--	--	8635	2036	222	2477	1649	1538	--	92102	
High Prairie	--	4556	52096	3138	745	--	6045	--	406	836	2672	2592	176	59564	
High River	--	--	--	2256	--	--	2376	2036	800	2304	1070	--	--	72444	
Lacombe	--	6422	55204	2274	--	--	2236	2513	--	2236	2236	2236	909	65899	
Lac La Biche	--	4744	48595	1216	--	--	1341	3358	576	1134	5766	4049	263	71801	
McLennan	--	1904	53647	1531	--	--	5853	--	150	2980	2284	1992	--	55566	
Olds	--	2382	37735	2088	--	--	5853	--	--	1228	3426	5230	--	76102	
Peace River	--	2827	34534	2372	--	--	6455	--	--	--	--	--	--	66666	
Peach Creek	--	9216	49634	2302	--	--	1494	836	--	1757	2283	2284	--	69801	
Rocky Mt. House	--	2920	56588	3796	--	--	2920	--	--	2319	1606	1542	110	33028	
Spirit River	--	2167	25550	1824	--	--	733	73	594	421	767	839	--	33147	
Stettlar	--	5656	45172	1455	125	--	1592	1750	1095	797	1216	1210	16	21530	
St. Paul	--	3046	83450	4608	--	94	4514	--	--	880	2304	--	--	33635	
St. Paul	--	2693	8956	--	--	--	3804	3384	3184	4093	3110	3476	501	37663	
Taber	--	9152	52145	--	--	--	4346	4576	--	4376	2288	22	--	118169	
Tofield	--	2366	31033	1408	--	--	1387	--	--	962	1092	1092	--	33147	
Trochu	--	19173	13173	103	--	--	228	108	81	144	768	255	--	21530	
Two Hills	--	631	27847	1516	--	--	766	--	--	703	1086	1086	--	33635	
Vegreville	--	9110	83588	2972	--	--	2708	2346	--	1410	7804	4178	--	114116	
Vermillion	--	714	33678	5532	252	--	1256	249	418	906	2219	1344	--	54429	
Viking	--	2000	38799	4359	--	2817	252	2806	697	273	1208	1108	--	34932	
Vulcan	--	2472	25366	2414	--	--	1920	--	--	1760	4710	2480	--	69534	
Wainwright	--	2488	49556	2470	--	--	3000	600	600	2400	--	--	--	82288	
Westlock	--	2813	54584	9769	--	--	3972	--	744	2256	3399	3215	--	70224	
Wetaskiwin	--	2834	58700	6345	--	--	--	--	--	--	963	1317	--	262343	
TOTAL	2980	130628	1904201	153512	2830	7559	102103	42049	18319	73931	86255	79480	4541	262343	

TOTAL



## DIVISION OF HOSPITAL AND MEDICAL SERVICES

DISTRIBUTION OF ACCUMULATED HOURS OF WORK OF ALL HOSPITAL PERSONNEL IN NURSING ADMINISTRATION,  
DIRECT CARE OF PATIENTS AND SPECIAL SERVICES DURING 1959

Hospital	Undis-tributed	Nursing Admin-istration	Direct Care				Special Services							Total	
			Adults Children	Newborn	Emergency	Out-Patients	Operating Room	Central Supply Room	Pharmacy	Delivery Room	Laboratory	Radiology	Physio-therapy		Other
90 - 179 Beds															
Calgary Children's	--	7914	129994	--	--	1400	19772	--	818	--	2735	2209	7157	8925	180409
Camrose	--	10400	126880	6240	2980	--	14460	10400	1560	2980	10400	9320	1040	--	193860
Drumheller	--	2093	82254	5208	2033	--	4166	1876	2100	4166	3147	2169	--	--	19232
Grande Prairie	--	4528	121646	6936	6936	2312	6900	6936	1508	1508	3743	4356	2312	--	175618
Lamont	--	4272	91614	6260	--	--	9704	7512	920	5272	3743	4975	--	--	124072
Red Deer	--	5424	113728	10843	8136	--	16272	5424	--	8136	8136	9136	--	--	181240
TOTAL	--	34421	656116	35492	19235	3712	70774	32148	6906	24278	32775	32165	10509	8920	987451
180 Beds & Over															
Calgary General	--	17960	1163990	115288	53603	--	133426	65780	19212	77192	93821	55777	20486	--	1805835
Calgary Holy Cross	--	3384	432642	36391	12676	--	24002	24002	12568	50410	62242	18753	12038	--	796675
Edmonton General	--	13518	642726	15561	11974	--	74307	13402	31594	31594	69356	38855	7036	--	983359
Edmonton Hsiaofoordia	--	20916	503928	64644	32091	--	69155	12067	7852	36873	72257	39921	3936	--	961768
Edmonton Royal Alex	--	28294	993393	117287	39790	--	81559	64757	21319	60377	97539	58651	14144	--	1578060
Edmonton University	--	10929	1631442	59146	25653	26809	163459	45425	24560	65150	125525	63342	77732	29401	2343223
Lethbridge St. Michael's	--	22002	331111	20384	15592	--	40768	29800	4160	17244	47840	22880	5512	--	502863
Lethbridge St. Mic.	--	8488	239024	16893	726	--	23105	11014	6306	--	13171	6680	6900	--	342325
Medicine Hat	--	62314	263939	21525	9262	--	31898	13060	4620	8960	16213	4160	--	--	435356
TOTAL	--	284355	6066473	467119	237518	26809	720623	313837	112557	347260	592959	294029	151811	29401	9644464
GRAND TOTAL	19156	514359	9376224	718128	249598	41021	914972	399653	144467	458722	741265	433240	167200	38321	14227285

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TABLE 41: - DISTRIBUTION OF ACCUMULATED HOURS OF WORK OF ALL HOSPITAL PERSONNEL ON SUPPLEMENTAL SERVICES, GENERAL SERVICES, AND OTHER DETACHMENTS DURING 1959

Hospital	Supplemental Services					General Service Departments					Total Hours of all Departments					
	Medical Records	Nursing Education	Medical Education	Social Service	Other	Admin- istration	Dietary	Laundry	Linen	House- keeping		Physical Plant		Other	Total	
												Operation	Maintenance			
1 - 29 Beds																
Beaverlodge	--	--	--	--	--	2448	4466	3003	--	4969	--	2280	--	17166	43755	
Bentley	--	--	--	--	--	2180	3187	2490	--	2430	200	2180	200	23135	23135	
Bentley K.H.P.	110	--	--	--	--	2062	3641	3263	166	4034	2064	13027	15037	36657	36657	
Bow Island	--	--	--	--	--	1995	3904	1995	--	3870	1976	328	13037	32688	32688	
Carmore	24	--	--	--	--	1660	2771	2294	--	2066	1681	2280	13979	34995	34995	
Carmanagay	--	--	--	--	--	1985	4098	2892	--	4624	1000	2180	10496	21789	21789	
Castor	2781	--	--	--	--	3047	17447	9641	1375	6311	3115	546	32869	81192	81192	
Cereal	--	--	--	--	--	2870	2894	2349	1861	2496	300	120	10334	22241	22241	
Coalville	790	--	--	--	--	2976	9756	4492	1248	2496	--	2496	23674	48686	48686	
Cold Lake	948	--	--	--	--	4380	8224	6409	--	6161	2062	777	39611	71581	71581	
Consort	--	--	--	--	--	337	7656	2624	--	3176	4008	--	14901	10542	10542	
Coronation	--	--	--	--	--	2080	4160	3120	795	3120	520	520	13920	39297	39297	
Daysland	435	--	--	--	--	3285	9678	4480	5558	2504	--	--	26675	59437	59437	
Devon	--	--	--	--	--	3850	3194	250	5283	2184	--	--	14726	26757	26757	
Drayton Valley	--	--	--	--	--	2931	6216	2972	300	3272	2072	2072	19085	50900	50900	
Edmonton	--	--	--	--	--	1316	9940	2744	1260	9810	360	360	27790	49671	49671	
Essex	1040	--	--	--	--	1040	2020	2294	2430	4071	1934	993	11157	23160	23160	
Glendon	--	--	--	--	--	2030	4636	2332	--	2982	1660	65	13195	30633	30633	
Hardisty	--	--	--	--	--	5261	9100	3790	1220	5120	2331	2331	26392	50295	50295	
Hythe	--	--	--	--	--	--	4624	2312	--	4624	540	360	12660	25777	25777	
Innisfail	--	--	--	--	--	3358	8680	6796	3898	12945	2570	2243	40230	82357	82357	
Islay	--	--	--	--	--	2348	2440	2348	--	2348	2348	2348	11832	26959	26959	
Jasper	--	--	--	--	--	3600	6784	2298	400	9600	3025	--	48233	96997	96997	
Killam	379	--	--	--	--	4691	7729	7087	--	6912	2709	--	29427	68998	68998	
Macraeth	--	--	--	--	--	1143	4409	2296	--	9716	1168	548	14967	46657	46657	
Manning	--	--	--	--	--	2288	2298	2288	--	12 56	1872	--	20982	33380	33380	
Manville	--	--	--	--	--	1976	2580	--	--	3080	1124	1100	28723	56440	56440	
Mayerthorpe	--	--	--	--	--	2251	10554	4376	--	8840	2835	--	28856	65440	65440	
McMurray	1140	--	--	--	--	11720	4890	4490	4468	14070	3670	--	42818	68680	68680	
Montrose	1995	--	--	--	--	1663	4923	1886	958	1729	1288	--	37502	73502	73502	
Norman	--	--	--	--	--	2469	4900	4116	--	2108	2430	1325	13518	23618	23618	
Oyen	--	--	--	--	--	2064	1550	1550	416	2108	1325	--	33138	63618	63618	
Protest	1800	--	--	--	--	3697	7220	4410	206	9585	3354	1066	31338	63618	63618	
Raymond	84	--	--	--	--	4608	10421	2544	302	1843	1915	959	2676	33236	33236	
Rocky Lake	--	--	--	--	--	2452	5774	4540	490	3156	540	120	17362	40694	40694	
Rocky Lake	104	--	--	--	--	5936	10100	5494	24	7344	120	9264	37152	65273	65273	
Three Hills	--	--	--	--	--	2850	5842	3941	--	4542	1475	1441	17810	36463	36463	
Turner Valley	--	--	--	--	--	2944	10896	3983	136	5553	1941	--	27044	61572	61572	
Valna	--	--	--	--	--	1323	11260	2295	--	2825	--	--	17703	52993	52993	
Willington	490	--	--	--	--	4985	7649	2153	696	3332	1924	1072	33046	33046	33046	
						2496	7027	5923	410	2134	--	1197	20777	41001	41001	
TOTAL	12990	--	--	--	--	111729	299009	142578	26740	212536	65603	33960	344	900539	1907522	1907522

Hospital	Supplemental Services					General Service Department's					Total				
	Medical Records	Nursing Education	Medical Education	Social Service	Other	Admin-istration	Dietary	Laundry	Linen	House-keeping		Physical Plant		Other	Total
												Operation	Maintenance		
O - 99 Beds	2197	--	--	--	--	3631	10787	3143	--	5665	2398	1164	--	27988	72254
	2064	--	--	--	--	12775	17834	7183	3600	12673	3352	3185	--	51899	115299
	2064	--	--	--	--	14832	17834	7183	3600	12673	3352	3185	--	51899	115299
	1235	--	--	--	--	4932	11412	1916	192	13618	2590	3650	--	18150	116586
	2920	--	--	--	--	9918	11420	8048	--	15460	9020	2912	2550	64239	116586
	2304	--	--	--	--	14789	13366	8194	3087	8165	--	3628	--	57419	127264
	2776	--	--	4206	--	8094	18432	4608	2304	11570	--	4604	--	57419	144000
	--	--	--	--	--	33563	4602	5976	906	27440	2131	--	--	81650	170504
	--	--	--	--	--	3549	9246	4638	--	6912	2311	2304	--	76765	93676
	--	--	--	--	--	3549	9246	4638	632	3576	2144	--	--	31820	77216
St. Louis	1143	--	--	--	--	4553	10770	3348	1322	12031	2650	2650	--	36924	96631
	--	--	--	--	--	5245	13754	4505	1018	5395	2312	2312	--	35508	71465
	--	--	--	--	--	7240	17616	5304	460	12090	2840	3454	--	44550	114550
	--	--	--	--	--	4608	13324	6912	--	4608	2304	--	--	32256	94464
	--	--	--	--	--	5240	10716	6240	--	6240	2080	--	--	31516	87050
	--	--	--	--	--	7016	29500	2304	2304	12324	980	1450	--	43428	84117
	2168	--	--	--	--	7833	13213	4219	11440	5815	1892	1454	--	46382	112477
	1701	--	--	--	--	4774	17065	5136	1199	9314	3353	3353	--	50571	124773
	1232	--	--	--	--	10256	21728	7590	1899	11546	2304	1200	--	62136	130750
	--	--	--	--	--	7872	19431	4635	2598	22954	2304	--	--	52138	129482
St. Louis	2100	--	--	--	--	5853	20695	9760	--	11132	4498	--	--	52138	129482
	1071	--	--	--	--	7314	22398	9596	2059	4724	3678	2411	--	59340	119699
	532	--	--	--	--	15375	22398	9596	619	11800	2825	4691	--	69228	141029
	--	--	--	--	--	6795	7699	4724	11800	11800	3150	2988	--	33439	91395
	--	--	--	--	--	6572	19299	4648	2072	9352	2352	--	--	48329	124465
	3936	--	--	--	--	7032	18140	7776	2342	10906	2357	5595	--	55935	124751
	--	--	--	--	--	4593	7538	7920	1256	18958	--	9348	--	119734	119734
	400	--	--	--	--	4224	9262	2351	--	5631	--	--	--	267	

TOTAL

DISTRIBUTION OF ACCUMULATED HOURS OF WORK OF ALL HOSPITAL PERSONNEL ON  
SUPPLEMENTAL SERVICES, GENERAL SERVICES, AND OTHER DEPARTMENTS  
DURING 1959

Hospital	Supplemental Services					General Service Departments						Physical Plant		Total	Total Hours of all Departments
	Medical Records	Nursing Education	Medical Education	Social Service	Other	Admin-istration	Dietary	Laundry	Linen	House-keeping	Operation	Maintenance			
90 - 179 Beds															
Calgary Children's	5664	2064	--	3664	6095	22230	28467	14940	2100	25920	10421	4144	--	126229	306738
Camrose	4160	--	--	--	--	11200	17472	12088	2080	29950	4920	6240	--	91510	239570
Drumheller	1991	--	--	--	--	12431	22192	12431	2083	29470	5980	12475	--	94600	203952
Grande Prairie	4624	--	--	--	--	23120	30056	16314	4694	25434	3000	4946	--	111978	287592
Lamont	5322	5759	--	--	--	15950	34207	7500	2084	21705	7742	8493	--	109662	233734
Red Deer	5424	--	--	--	--	34216	22514	15696	5424	25256	13560	2712	--	124832	309072
TOTAL	27185	7823	--	3664	6095	115393	156339	78859	18395	157935	43323	34700	--	658911	1626362
180 Beds & Over															
Calgary General	27568	111557	29120	3244	--	138411	277609	103124	16440	242480	13352	46654	3100	1099173	2815008
Calgary Holy Cross	17714	137515	4448	--	--	83030	168088	43841	12463	32044	11784	33652	--	625613	1422286
Edmonton General	21080	238173	23060	20178	--	91382	191024	46504	18432	99249	12434	26086	--	709819	1589178
Edmonton Kinslercordia	17289	19884	44771	20178	--	81332	137015	46504	8432	99190	12434	26086	--	570866	1432634
Edmonton Royal Alex	34560	117840	70110	--	2409	156075	202246	82123	15019	263003	28170	106803	--	1078403	26511463
Edmonton University	48567	172553	10859	4144	10224	186156	319365	108075	25552	149863	--	164102	66490	1266955	3609178
Lethbridge Municipal	10440	45456	--	--	--	43027	89744	28144	10442	68064	17736	4352	--	321305	821668
Lethbridge St. Vic.	9696	53225	--	--	--	42613	73171	30573	4263	51921	9870	10384	--	235516	627811
Medicine Hat	6457	54513	--	--	--	27417	61876	24387	3967	53355	9868	13249	--	254429	698435
TOTAL	193391	1000701	112588	27866	12633	854704	1468270	502131	110959	1150798	102414	441932	69590	6117277	15763711
GRAND TOTAL	272938	1204544	182598	35436	18728	1416990	2521916	983998	212063	1982573	335764	615765	72134	9694557	23921843

## DIVISION OF HOSPITAL AND MEDICAL SERVICES

TABLE 42: - DISTRIBUTION OF TOTAL EXPENDITURE ON SALARIES & WAGES  
MEDICAL & SURGICAL SUPPLIES, DRUGS, AND OTHER  
EXPENSE BY HOSPITAL, 1959

Hospital	Total	Gross Salaries & Wages	Medical & Surgical Supplies	Drugs	Other
1 - 29 Beds					
Beaverlodge	75476	44834	2431	5851	22361
Bentley	54901	35021	2107	2879	14895
Berwyn	64924	43445	1831	2196	17452
Bonnyville K.H.P.	54163	36109	2057	3498	12499
Bow Island	66698	42424	3462	2466	18346
Cammore	43110	29110	4987	—	9012
Carbongay	63691	47895	1152	753	13891
Castor	112844	69538	2964	3325	37017
Cereal	55477	34161	1750	5179	14387
Coaldale	61601	35815	4584	2834	18366
Cold Lake	97734	63088	2531	7222	24894
Consort	62411	39985	2629	4330	15467
Coronation	61461	35999	2824	6616	16022
Daysland	88973	51334	1964	8338	27337
Devon	54781	36078	1659	2800	14245
Drayton Valley	116596	74268	5694	6657	29977
Eckville	80271	51940	1373	3141	23817
Elkhora	49516	31754	1038	2249	14474
Empress	53646	33974	2110	2538	15024
Glendon	46189	29023	833	1900	14432
Hardisty	76908	50774	2266	3322	20546
Hythe	43262	26583	1196	970	14513
Innisfail	148638	88102	10367	12943	37276
Islay	41513	27253	366	1650	12244
Jasper	84175	53517	2675	3972	24011
Killam	107442	68505	3070	7006	28862
Magrath	76036	44864	2234	6630	22308
Manning	62019	36436	2151	1361	22071
Manville	51525	31824	1585	2342	15774
Mayerthorpe	98135	63425	3044	4076	27591
McMurray	82522	48923	1192	1739	30669
Mundare	58219	40623	496	1203	15897
Myrnam	92458	57325	3463	3911	27759
Oyen	80299	46127	2915	8788	22469
Provost	121986	74137	5224	5587	37038
Radway	71967	47821	1377	2445	20323
Raymond	67369	39212	3266	5730	19162
Rimbey	121160	70863	1762	10099	35436
Smoky Lake	54989	35384	1872	2214	15519
Three Hills	99238	65579	4363	3761	25534
Turner Valley	98897	57818	3924	6742	30413
Valma	54564	38357	974	1886	13347
Willingdon	63880	45092	635	2072	16081
TOTAL	3221714	2024340	113397	175221	909758

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DISTRIBUTION OF TOTAL EXPENDITURE ON SALARIES & WAGES  
MEDICAL & SURGICAL SUPPLIES, DRUGS, AND OTHER  
EXPENSE BY HOSPITAL, 1959.

Hospital	Total	Gross Salaries & Wages	Medical & Surgical Supplies	Drugs	Other
30 - 89 Beds					
Athabasca	133599	78336	5961	10271	39031
Banff	202683	137943	5468	5919	53354
Barrhead	180467	114061	6516	10175	49715
Bessano	96732	57898	3174	6971	28689
Blairmore	186195	120014	2649	13799	49732
Bonnyville St. Louis	148389	95886	3392	10071	39039
Brooks	253953	156573	11913	14787	70680
Calgary Grace	232270	166237	12008	7290	46734
Cardston	130494	77708	6044	9386	37355
Clareholm	151845	103306	12273	—	36266
Didsbury	163386	100466	4824	13085	45010
Edson	108186	73976	2360	5307	26543
Elk Point	217365	135819	4660	13418	63469
Fairview	162977	95445	8185	9452	49895
Ft. McLeod	150502	90983	6824	9956	42738
Ft. Vermilion	92775	52627	1671	8607	29870
Galahad	125581	76056	1911	8444	39170
Hauma	215854	142215	4132	10116	59361
High Prairie	201032	135033	5865	12638	47497
High River	236303	154548	7734	10737	63285
Lacombe	216026	135099	8723	10831	61372
Lac La Biche	172854	106071	2432	14278	50073
McLennan	209019	137139	3757	7206	60917
Olds	160862	97679	6451	10404	46327
Peace River	227290	133285	12133	15473	66598
Pincher Creek	184607	115675	5937	8284	54710
Ponoka	170436	113520	6181	9114	41621
Rocky Mt. House	93555	61498	1406	2995	27657
Spirit River	175670	113875	2770	8223	50802
Stettler	231255	160584	6955	11717	51998
St. Paul	209008	150163	3881	11907	43057
Taber	286416	187110	659	345	98302
Tofield	120415	68653	8966	7132	35664
Trochu	76184	48600	594	3939	23051
Two Hills	99923	68357	3181	3113	25272
Vegreville	314035	200661	9629	23270	80474
Vermilion	140490	91230	2459	6753	40048
Viking	145276	93318	6512	7180	38266
Vulcan	107968	63587	2681	4913	36787
Wainwright	192519	108909	5833	14447	63330
Westlock	209445	138595	5502	14763	50585
Wetaskiwin	186778	123607	7582	10639	44951
<b>TOTAL</b>	<b>7320619</b>	<b>4682345</b>	<b>231788</b>	<b>397385</b>	<b>2009095</b>



## DIVISION OF HOSPITAL AND MEDICAL SERVICES

DISTRIBUTION OF TOTAL EXPENDITURE ON SALARIES & WAGES  
MEDICAL & SURGICAL SUPPLIES, DRUGS, AND OTHER  
EXPENSE BY HOSPITAL, 1959

Hospital	Total	Gross Salaries & Wages	Medical & Surgical Supplies	Drugs	Other
90 - 179 Beds					
Calgary Children's	499250	390759	13840	10561	84090
Camrose	489316	343192	16891	34298	94935
Drumheller	367565	213216	13503	13658	97187
Grande Prairie	510678	314969	12364	31234	152111
Lamont	348431	216039	12320	10068	110055
Red Deer	568800	401607	20348	30881	115964
TOTAL	2784090	1909782	89266	130700	654342
180 Beds & Over					
Calgary General	5109194	3685521	319401	190807	913466
Calgary Holy Cross	2266160	1646710	104247	107047	409157
Edmonton General	2401237	1743262	95839	110310	451826
Edmonton Misericordia	2211988	1612058	78720	115347	405864
Edmonton Royal Alex	4140442	2804730	186419	257888	891405
Edmonton University	5875969	3897864	330754	274903	1372449
Lethbridge St. Michael's	1289303	863985	57700	69924	297674
Lethbridge St. Mic.	975731	672347	36325	52482	214577
Medicine Hat	1082705	787495	43729	50769	200712
TOTAL	25352729	17713972	1253134	1229477	5156150
GRAND TOTAL	38679152	26330439	1687585	1932783	8728345

TABLE 43: - EXPENDITURES ON NURSING ADMINISTRATION, DIRECT CARE NURSING UNITS  
AND SPECIAL SERVICES, 1959

[illegible]

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EXPENDITURES ON NURSING ADMINISTRATION, DIRECT CARE NURSING UNITS  
AND SPECIAL SERVICES, 1959

Hospital	Undistrib- uted as to Departments	Direct Care: Nursing Units				Special Services					Radiology	Physio- therapy	Other	Total
		Nursing Adminis- tration	Adults & Children	Newborn Nursery	Emergency Unit	Out-Pa- tient De- partment	Total	Operating Room	Central Supply Room	Pharmacy	Delivery Room	Laboratory		
30 - 99 Beds														
Athabasca	--	1932	57597	2546	1183	405	62030	2643	1504	672	1578	1275	4995	12707
Barfleur	--	5847	52190	6936	821	--	59847	5867	145	343	1753	4283	9448	31071
Barreault	--	1395	32020	2017	1315	--	32651	2056	1700	114	2153	1142	21133	21133
Basano	--	6150	36653	1733	--	--	68366	5568	554	1114	828	1467	7443	7443
Bellefleur	13/66	2100	37097	3015	--	--	40111	3498	275	1700	817	1897	17471	17471
Bonville St. Louis	--	7115	78447	2423	--	--	80202	12953	7110	14787	1800	4684	18337	18337
Calgary Grace	--	13917	44872	19562	50	--	68400	12953	7110	14787	4654	8024	56103	56103
Cardston	--	3299	34649	1663	1930	--	38242	12953	7110	14787	20180	3573	4876	4876
Clareholm	--	5685	63444	1625	591	--	65659	7715	4096	10096	2237	5564	235	30643
Diesbury	--	1945	56482	2448	--	--	59130	5016	385	--	2237	1676	314	12758
Edson	--	1795	60822	2448	--	--	62670	11611	--	587	2467	3114	4271	22050
Elk Point	--	4990	70969	2977	--	--	73946	2033	15978	--	1536	2357	3638	9564
Fairview	--	2040	71311	2716	--	--	74043	4785	--	--	1476	2571	1476	29283
Ft. McLeod	--	6520	59145	1674	--	--	60819	4586	--	--	2454	1670	4443	15415
Ft. Vermilion	10278	1149	11450	1153	--	--	12604	1134	275	1012	1441	3742	3355	19834
Galt Head	--	1960	28269	1795	--	--	30063	2344	31149	8787	608	1954	3367	10919
Hanna	--	3697	73714	2976	--	--	76704	1647	2570	451	3049	3665	6019	20229
High Prairie	--	6271	82394	3910	471	--	83875	10888	2105	629	2037	3727	8272	20401
High River	--	4565	64812	5605	--	--	70417	5630	5895	10744	5434	3807	1256	27802
Lacombe	--	9150	34504	1900	--	--	36404	3566	1366	1107	3777	1595	7943	34865
Le La Biche	--	2950	58285	3339	--	--	61623	2687	3166	1849	4613	5348	8447	21475
Medan	--	7877	80462	4537	--	--	85299	12855	3536	323	4380	7128	30235	30235
Olds	--	7877	80462	4537	--	--	85299	12855	3536	323	4380	7128	30235	30235
Pace River	--	15160	31762	1200	--	--	32962	5069	5821	6924	3658	2788	8605	30457
Pincher Creek	--	4348	71990	2044	--	--	74033	6712	276	4804	2465	1575	32815	32815
Ponoka	--	2803	43557	2580	--	--	46118	4078	1051	1530	873	1343	16486	16486
Rockyview House	--	4271	100465	4599	--	--	104862	10846	--	--	3697	3885	11462	11462
Stettin	--	3191	62027	6123	2839	--	68159	9759	5347	3653	6212	3579	7179	27090
St. Paul	--	1040	29494	1905	--	--	31339	11133	10794	7133	1154	9811	12669	35109
Taber	--	1253	36906	2253	--	--	39159	2204	550	3899	302	948	6769	6769
Tofield	--	13080	77237	1889	--	--	79127	8212	6626	17527	4192	10008	17111	43674
Town	--	1171	41845	7942	361	--	49048	2928	1883	1797	3431	5198	22096	22096
Two Hills	--	4461	35082	2891	--	4461	40008	13502	2855	13502	801	2688	26758	26758
Vegreville	--	2970	59652	3237	--	--	62930	10197	1200	2943	3558	9803	10114	10114
Vermilion	--	6018	49172	8123	--	--	57595	9066	2123	13971	3293	3803	14502	42701
Vulcan	--	6697	63129	3916	--	--	67045	10922	5184	9888	2199	1454	32947	32947
Westlock	--													
Wetaskiwin	--													
TOTAL	23742	175477	2264546	163485	9851	4566	2442443	263373	113897	179506	132684	144928	262084	1103238

EXPENDITURES ON NURSING ADMINISTRATION, DIRECT CARE NURSING UNITS  
AND SPECIAL SERVICES, 1959

Hospital	Undistrib- uted as to Departments	Direct Care: Nursing Units				Special Services					Other	Total			
		Nursing Administration	Adults & Children	Newborn Nursery	Emergency Unit	Out-Pa- tient De- partment	Total	Operating Room	Central Supply Room	Pharmacy			Delivery Room	Laboratory	Radiology
90 - 179 Beds															
Calgary Children's	—	14,086	159708	—	—	2924	162631	38561	—	2190	—	5501	10035	10133	89251
Camrose	—	11	179112	7200	—	—	186312	27855	34271	9531	4294	128936	17882	1400	103670
Cranebrook	—	4481	63878	637	3973	—	70769	1878	4476	1878	5628	12966	2513	1878	18974
Cranebrook Prairie	—	17824	156676	9031	8594	—	172290	18945	3513	3513	5628	12966	2513	4111	76891
Lamont	—	7928	73776	3804	—	—	77580	11261	7870	1895	4004	6353	16269	—	47651
Red Deer	—	9120	207733	6425	9326	—	223484	30083	8825	4	5367	11960	22029	1744	80012
TOTAL	—	54450	903017	31645	21183	2924	959767	136897	59630	21711	25414	55216	104088	17988	436774
180 Beds & Over															
Calgary General	—	34981	1354764	154125	82426	—	1591635	251339	207057	163735	112542	213134	149283	34350	1131440
Calgary Holy Cross	—	16533	593847	53044	34663	—	683574	133300	25231	19763	52497	128175	60017	8882	427865
Edmonton General	—	6681	690819	22348	19401	—	732568	133732	83117	20167	42355	128981	87432	11992	507825
Edmonton Misericordia	2042	13904	579052	79806	40962	—	699819	117418	37132	117130	51212	106980	54137	6079	490090
Edmonton Royal Alex	—	60412	1047189	147173	62449	—	1256311	202280	143812	36404	86668	157954	131678	26845	783642
Edmonton University	—	227859	1334805	74384	32935	28319	1470444	332597	155881	89913	70627	196589	137971	—	1280285
Lebanon Municipal	—	32071	259312	2956	1342	—	269840	52968	8355	9350	4663	47677	43918	10405	131176
St. Michael's Medicine Hat	—	39498	348281	25364	10886	—	394531	53130	13225	8791	20171	50755	16392	—	162444
TOTAL	2042	469275	6554941	599891	307010	28319	7480161	1341196	696691	467905	462430	1103443	730729	106430	5211057
GRAND TOTAL	63530	770871	8640395	846698	342700	38101	11956359	1819388	914941	750676	661179	1353359	1185036	130756	7149801

## DIVISION OF HOSPITAL AND MEDICAL SERVICES

TABLE 441 - EXPENDITURES ON SUPPLEMENTAL SERVICES AND GENERAL SERVICE DEPARTMENTS, 1959

Hospital	Supplemental Services					General Service Departments					Physical Plant		Total	Total Expenditure on all Departments & Services
	Medical Records	Nursing Education	Medical Education	Social Service	Other	Total	Admin-istration	Dietary	Laundry	Linen Service	House-keeping	Operation	Maintenance	
1 - 29 Beds														
Beaverledge	--	--	--	--	--	--	6638	11925	2213	214	3790	8545	4318	75476
Bentley	--	--	--	--	--	--	4898	8749	1597	371	1877	4311	2482	74621
Berwyn	--	--	--	--	--	--	6646	12250	1832	468	5038	7040	3155	34899
Bonnyville K.I.P.	--	--	--	--	--	--	5048	9225	2217	576	3222	4501	1197	28984
Box Island	15	--	--	--	--	--	8094	10519	1939	950	3043	5569	1036	54163
Cannon	161	--	--	--	--	161	2124	9531	376	203	446	1130	31	31155
Carmangay	--	--	--	--	--	--	6204	2931	2231	203	3493	3849	2013	43110
Castor	3712	--	--	--	--	3712	11502	29403	7743	3248	5913	11302	65691	65691
Cereal	--	--	--	--	--	--	6019	2633	2633	- (30)	2316	4032	910	112844
Coaldale	730	--	--	--	--	730	3410	13779	2909	1030	1381	2699	3497	24877
Cold Lake	1213	--	--	--	--	1213	7650	15470	4651	969	4463	9915	1126	61671
Consort	--	--	--	--	--	--	4449	11897	1776	274	1863	2177	28855	97734
Coronation	--	--	--	--	--	--	8168	1785	1785	1740	3190	3368	1530	44244
Daysland	426	--	--	--	--	426	6995	20373	3177	1720	3056	3084	2322	61661
Devon	--	--	--	--	--	--	6801	7590	1603	3235	2305	3368	45297	88973
Drayton Valley	--	--	--	--	--	--	15237	18237	4358	540	4903	9074	656	54781
Edmonton	--	--	--	--	--	--	6337	19381	2160	1454	6234	7374	1256	116596
Elora	32	--	--	--	--	35	4901	8452	2492	791	3274	3084	2322	44237
Empress	635	--	--	--	--	635	5024	8209	1377	2073	3274	4649	949	80271
Glendon	31	--	--	--	--	31	5024	7601	1973	334	1775	5222	1114	49516
Hardisty	67	--	--	--	--	67	12094	16595	3472	1280	5235	5017	3125	53646
Hythe	--	--	--	--	--	--	2533	9944	1698	188	3834	2552	4069	22021
Lytle	--	--	--	--	--	--	10410	25926	5758	4668	10423	2852	4685	76908
Mayfield	--	--	--	--	--	--	4913	7186	1744	405	1986	3018	2969	43262
Mayville	--	--	--	--	--	--	8644	16938	2050	2595	6695	4701	1803	41813
Jasper	--	--	--	--	--	--	1079	17401	6494	783	5760	8022	1955	34175
Killam	1079	--	--	--	--	1079	7949	12350	1370	727	6860	5416	1362	76908
Knox	--	--	--	--	--	--	8684	11279	1324	4113	3729	7635	2917	107442
Manitowish	--	--	--	--	--	--	4904	9294	2587	599	2832	3322	2559	37035
Manning	--	--	--	--	--	--	9695	19642	4437	560	7952	7671	2509	62019
Mayville	--	--	--	--	--	--	9195	23231	3216	3018	7835	8998	3784	51525
Mayville	734	--	--	--	--	734	9195	23231	3216	3018	7835	8998	3784	51525
McMurray	1705	--	--	--	--	1705	5771	17248	3103	1256	2501	7462	4402	82527
Mundare	--	--	--	--	--	--	11098	14653	1737	792	1659	7818	3176	35219
Nyman	--	--	--	--	--	--	1760	19294	3603	775	7012	10112	5178	40293
Oyen	--	--	--	--	--	--	10628	17326	3474	755	2172	5731	1676	36309
Protest	--	--	--	--	--	--	9790	24310	5483	1380	4036	14822	4181	121594
Rayway	284	--	--	--	--	284	9706	24310	5483	1380	4036	14822	4181	71967
Raymond	--	--	--	--	--	--	5994	8695	1379	388	4036	7644	1676	29937
Rimby	306	--	--	--	--	306	5994	8695	1379	388	4036	7644	1676	47374
Shokey Lake	133	--	--	--	--	133	6527	19388	4200	739	4695	7644	1676	59293
Three Hills	--	--	--	--	--	--	6761	22384	2721	1560	3063	2069	5736	46994
Turner Valley	--	--	--	--	--	--	7404	10238	2358	693	3111	2069	5736	46994
Vilna	891	--	--	--	--	891	7715	11505	4651	1279	1909	2069	5736	54564
Willingdon	--	--	--	--	--	--	31257	60642	12859	4318	17165	24810	15994	34686
TOTAL	13292	--	--	--	--	13292	60642	12859	4318	17165	24810	15994	15994	322174

## EXPENDITURES ON SUPPLEMENTAL SERVICES AND GENERAL SERVICE DEPARTMENTS, 1959

Hospital	Supplemental Services						General Service Departments						Total Expenditure on all Departments & Services	
	Medical Records	Nursing Education	Medical Education	Social Service	Other	Total	Administration	Dietary	Laundry	Linen Service	Physical Plant			Total
											Operation	Maintenance		
30 - 39 Beds														
Athabasca	406	--	--	--	--	406	9041	25399	3123	1057	4504	9359	4040	56525
Banff	4332	--	--	--	--	4332	26534	35649	6614	3092	10566	10566	9986	107333
Barriere	2940	--	--	--	--	2940	30238	30238	7433	5648	13205	6719	93448	180467
Bassano	1011	--	--	--	--	1011	3585	22356	3901	1730	9277	1298	51544	96772
Blainmore	1011	--	--	--	--	1011	18095	32491	5989	1348	10794	17046	7933	93196
Bonnyville St. Louis	1732	--	--	--	--	1732	14119	26010	6950	2036	6637	11273	3570	72595
Brooks	4452	--	--	--	--	4452	20794	41784	10912	2850	10966	10969	7168	105413
Brooks Grace	6403	165	--	--	--	6568	31221	22439	7151	1846	20001	14805	3964	232270
Cardston	1453	--	73	--	--	1526	10483	19998	4870	2383	9926	9926	4667	130494
Clareholm	--	--	--	--	--	--	9239	26620	6865	1911	10090	8313	56784	130494
Clareholm	--	--	--	--	--	--	9239	26620	6865	1911	10090	8313	56784	130494
Didsbury	--	--	--	--	--	--	16956	29852	3653	2988	12149	9998	5795	80261
Edson	2493	--	--	--	--	2493	10984	22019	4298	1695	5447	6242	2285	108126
Elk Point	8	--	--	--	--	8	23240	36573	5701	3183	16034	12419	13692	110137
Fairview	--	--	--	--	--	--	11413	33024	4992	1411	6113	10166	3952	71876
Fr. McLeod	--	--	--	--	--	--	15922	26526	3391	630	6119	9035	1206	63323
Fr. Vermilion	--	--	--	--	--	--	13547	18959	1827	1605	6790	12013	1684	55826
Galahad	151	--	--	--	--	151	13422	29595	6210	2617	5584	7427	8573	125591
Hanna	3907	--	--	--	--	3907	21225	39264	4974	2269	8072	15978	12963	215854
High Prairie	1190	--	--	--	--	1190	21130	35883	7650	3135	8813	11495	3229	201032
High River	2392	--	--	--	--	2392	22280	42443	9365	2943	17651	10423	5662	236303
Lacombe	--	--	--	--	--	--	22262	40754	7584	3229	12595	10426	5659	216026
Lac La Piche	2459	--	--	--	--	2459	14067	34756	8113	2777	12096	20577	89366	172854
McMann	1609	--	--	--	--	1609	27123	40370	6466	3053	8028	10111	5559	165862
Olds	--	--	--	--	--	--	17259	26375	6466	3053	8028	10111	5559	165862
Peace River	761	--	--	--	--	761	17822	43056	6789	3561	8001	15024	8643	227290
Pincher Creek	5260	--	--	--	--	5260	23532	32949	7302	4419	8029	12473	9706	184607
Pincher Creek	--	--	--	--	--	--	12727	26218	6013	1931	10451	5198	12330	170436
Rocky Mt. House	--	--	--	--	--	--	9918	17294	2105	252	3262	10706	75570	175570
Spirit River	--	--	--	--	--	--	25596	35708	5897	4666	15097	1914	44850	102596
Stettler	97	--	--	--	--	97	16967	37161	9282	2307	13111	7744	9496	102596
St. Paul	3770	--	67	--	--	3837	31701	31701	8055	4722	15090	10782	7075	97711
Taber	2112	--	--	--	--	2112	39437	59437	7336	3448	7170	17336	7075	106375
Tofield	53	--	--	--	--	53	9416	20685	4071	385	9773	7343	2092	58164
Trochu	--	--	--	--	--	--	11456	16723	4043	571	4194	8134	2356	47676
Two Hills	--	--	--	--	--	--	8112	21139	3620	1012	10598	10598	1522	39745
Vegreville	5050	16354	--	--	--	21604	28971	45635	11838	7804	15588	13931	13934	99923
Vermilion	350	--	--	--	--	350	21907	23800	3306	1983	7160	10125	8456	110490
Viking	31	--	--	--	--	31	19042	23800	5059	1844	7251	7994	4390	69480
Vulcan	--	--	--	--	--	--	10055	22441	4127	1169	1673	8806	9108	145276
Wainwright	79	--	--	--	--	79	15800	25345	3903	1968	13058	10604	11538	107968
Westlock	461	--	--	--	--	461	22008	39642	6659	6030	10554	17064	713	209445
Wetaskiwin	163	--	--	--	--	163	11361	33976	5950	3252	7137	14212	3974	79922
TOTAL	54717	16592	67	73	--	71429	723801	1279354	251175	103280	379346	504360	257966	7320619





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TABLE 45: -OTHER REVENUE FUND EXPENSE FOR THE  
YEAR ENDING DECEMBER 31, 1959

Hospital	Interest on Short term Loans	Interest on Long term Loans	Depreciation on Buildings & Building Service	Deprecia- tion on Equipment	Other Expense	Total other Revenue Fund Expense
1 - 29 Beds						
Beaverlodge	---	4513	2170	2780	200	16664
Bentley	---	768	5001	2747	---	3516
Berwyn	---	600	5593	3496	---	9689
Bonnyville K.H.P.	20	---	1462	1176	---	2657
Bow Island	741	---	11320	5268	---	17329
Canmore	---	---	---	262	2400	2462
Camangay	371	2513	7000	---	---	15984
Caster	---	---	2151	3066	1025	6242
Cereal	63	537	1157	410	19	2181
Coaldale	---	---	2770	2646	33	5448
Cold Lake	14	7843	5968	2290	370	16485
Consort	---	991	5513	1587	---	8091
Coronation	---	---	984	2376	---	3160
Daysland	14	---	2394	5110	---	7420
Devon	---	---	1100	2251	2653	6004
Drayton Valley	2261	5004	11217	4421	---	22903
Eckville	51	1668	10546	277	---	12543
Elmora	---	973	2559	2029	---	5559
Express	---	---	2094	2606	---	4693
Glendon	342	2509	3563	2865	50	9329
Hardisty	---	---	3745	3187	---	6931
Hinton	---	18258	---	---	3186	21444
Rythe	597	---	1730	636	---	2962
Innisfail	167	---	3215	6957	---	10338
Islay	---	---	1356	770	---	2126
Jasper	121	495	4440	2969	---	8025
Killam	12	---	4396	3940	---	8348
Magrath	---	2745	7519	449	---	10714
Manning	645	3235	10912	1649	---	16441
Mannville	---	---	1000	2552	---	3651
Hayerthorpe	172	2308	2095	2957	19	7551
McMurray	---	3139	1806	2918	---	7862
Mundare	---	---	2302	2544	---	4846
Myram	---	3005	3120	2332	---	8456
Oyen	---	396	2800	775	1265	5237
Provost	---	2526	5200	4033	3	11762
Radway	---	---	937	1195	---	2132
Raymond	---	420	3061	120	---	4001
Rimbey	---	2340	6134	2251	---	10769
Smoky Lake	---	2855	1305	1142	---	5302
Three Hills	---	1962	5634	4978	160	12735
Turner Valley	1	---	2367	2510	525	5404
Vilna	---	---	3093	1131	---	4224
Willington	---	---	795	2350	---	3144
TOTAL	5592	77999	170172	101948	11998	367614

## DIVISION OF HOSPITAL AND MEDICAL SERVICES

OTHER REVENUE FUND EXPENSE FOR THE  
YEAR ENDING DECEMBER 31, 1959

Hospital	Interest on Short Term Loans	Interest on Long Term Loans	Depreciation on Buildings & Building Services	Deprecia- tion on Equipment	Other Expense	Total Other Revenue Fund Expense
<b>30 - 89 Beds</b>						
Athabasca	183	5653	9380	3511	---	13726
Banff	---	40340	21377	14109	---	75826
Barrhead	---	15655	25471	7669	---	48794
Bassano	28	7002	1512	1392	---	9875
Blairmore	---	7215	10500	5612	4398	28225
Bonnyville St. Louis	---	1217	11219	4205	---	16641
Brooks	---	5315	6260	4584	47	16205
Calgary Grace	300	---	12182	10246	---	22723
Cardston	592	---	12676	9191	317	22776
Clareholm	---	---	4623	6757	---	11331
Didsbury	39	1667	11519	4319	326	17371
Edson	---	---	2237	4564	---	6801
Elk Point	---	5251	11161	3934	2643	22939
Fairview	1238	1620	8048	4736	---	15641
Ft. McLeod	---	13560	5434	2417	---	21411
Ft. Vermilion	64	2354	6863	3447	---	12729
Galahad	2	3000	7801	5037	---	15840
Hanna	1972	11061	7200	4830	---	25033
High Prairie	---	---	3642	4592	---	8234
High River	270	23788	10639	4975	---	39674
Lacombe	---	457	10449	2142	---	13043
Lac La Biche	---	16155	14339	5815	---	36309
Lloydminster	---	---	---	---	---	---
Molennan	---	18010	13467	9022	---	40499
Olis	2	7356	7203	3315	326	18202
Peace River	41	666	7333	3469	---	11508
Pincher Creek	---	2717	12649	6137	---	21503
Ponoka	---	5634	13437	4796	---	23917
Rocky Mt. House	---	4318	5502	2808	240	12868
Spirit River	309	9221	20274	5338	631	35772
Stettler	---	2905	5793	8765	---	17353
St. Paul	126	923	7909	3842	---	12800
Taber	---	9747	24925	454	---	35126
Tofield	22	7594	11347	3924	330	23199
Trochu	300	1890	5714	4773	---	12877
Two Hills	---	3360	11235	4107	---	19702
Vegreville	---	2250	20625	7660	---	30535
Vermilion	---	7236	9859	8403	---	25549
Viking	---	820	10326	5372	46	16564
Vulcan	64	1328	4699	5335	---	11426
Wainwright	85	3379	16566	5413	---	30442
Westlock	---	1209	13355	10957	---	23521
Wetaskiwin	---	---	9960	5361	---	15321
<b>TOTAL</b>	<b>5637</b>	<b>256822</b>	<b>446800</b>	<b>227225</b>	<b>9804</b>	<b>946289</b>

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OTHER REVENUE FUND EXPENSE FOR THE  
YEAR ENDING DECEMBER 31, 1959

Hospital	Interest on Short Term Loan	Interest on Long Term Loan	Depreciation on Buildings & Buildings Service	Deprecia- tion on Equipment	Other Expense	Total Other Revenue Fund Expense
90 - 179 Beds						
Calgary Children's						
Camrose	1540	7294	16641	10576	---	36051
Drumheller	69	4252	16924	5634	---	26873
Grande Prairie	7543	33061	33039	12043	---	90691
Lamont	126	1938	8343	5596	---	16004
Red Deer	----	18939	16496	14204	---	49673
TOTAL	9283	65534	96433	48053	---	219302
180 Beds & Over						
*Calgary General						
Calgary Holy Cross	90	43757	63263	47951	---	155060
Edmonton General	----	84434	100001	56351	---	240836
Edmonton Misericordia	----	23883	50294	41080	---	115257
Edmonton Royal Alex	----	148068	133149	-----	---	231216
**Edmonton University	----	403859	-----	-----	---	403859
Lethbridge Municipal	4952	88701	97533	41176	87	232443
Lethbridge St. Michael's	412	12244	25409	52200	---	90266
Medicine Hat	3284	95989	94356	33030	---	231660
TOTAL	8733	900985	564005	276788	97	1750602
GRAND TOTAL	29250	1301340	1277410	654014	21799	3283807

\* Not available

\*\* Depreciation not available

TABLE 46: - NET EARNINGS FROM SERVICES TO IN-PATIENTS  
FOR THE YEAR ENDED DECEMBER 31, 1959

Hospital	In-Patients - General Services					Other Non- Resident Eligibles	In-Patient - Additional Services				Total In-Patient Earnings
	Adults & Children Provincial Co- Insurance	Adults & Children Patient Co- Insurance	Newborn Provincial Co- Insurance	Newborn Patient Co- Insurance	Federal Government Board	Non- Resident Eligibles	Differential Charges	Non- Profit Drugs	Ambulance Services	Other	Total
1 - 29 Beds											
Beaverlodge	1896	4301	535	55	957	5354	13098	—	—	182	13280
Bentley	1247	3404	236	21	550	48	6980	80	12	—	5811
Berwyn	1149	3932	465	23	347	286	6980	—	—	—	5811
Bonnyville K.H.P.	2166	3221	503	23	561	120	6594	34	—	—	6428
Bow Island	1227	4806	489	6	286	440	7298	326	—	—	7624
Camrose	1317	2812	284	18	1540	624	6595	79	—	—	6674
Cardston	1317	2812	284	18	1540	624	6595	79	—	—	6674
Castor	2958	3733	659	7	1088	289	13098	4000	—	—	4890
Cereal	1129	2706	197	19	11	11	4071	—	—	—	17709
Coaldale	2393	5553	610	39	99	1595	10597	149	—	—	10943
Cold Lake	2942	6674	1210	177	638	7018	21557	—	—	7	21564
Consort	1941	4011	435	10	957	293	7637	53	—	—	7637
Corralton	1589	3404	349	20	187	784	7614	30	—	—	7667
Davland	2208	5624	652	20	693	784	14653	665	—	—	14679
Devon	501	3720	133	—	—	—	5394	—	—	—	5394
Drayton Valley	3065	5424	1329	88	4433	929	15356	—	—	—	15356
Edenville	3455	5451	402	—	792	22	10473	—	—	—	10473
Edmonton	1589	2244	349	—	363	22	4566	—	—	13	4643
Edson	1589	2244	349	—	363	22	4566	—	—	—	4643
Glendon	1689	4324	132	62	1353	2049	7552	692	—	—	8407
Hardisty	2718	5819	441	—	946	442	3225	—	—	—	3225
Hythe	1361	1842	228	—	143	2248	5822	326	—	—	10491
Intifall	3649	11785	962	52	2540	631	19696	52	—	46	5919
Islay	2826	4324	91	20	—	99	4453	—	—	—	19704
Jasper	2294	4324	1323	—	5346	6588	20027	448	—	—	4453
Killam	2708	8226	854	46	286	169	12988	—	—	123	20598
Mcgrath	2940	5491	470	—	341	405	10647	933	—	—	13798
Manning	3134	3707	679	17	1298	8353	10647	1710	—	34	13842
Mannville	2189	3559	430	35	33	44	6269	—	—	—	833
Mayerthorpe	2522	4448	750	28	8173	502	16931	—	—	26	6293
Mohrway	1611	2236	477	59	3199	473	8147	—	—	3	16961
Mundare	3324	4083	299	8	297	405	8147	—	—	30	10151
Neyman	4605	3386	306	—	308	31	8544	—	—	208	287
Oyen	2297	5070	653	4	594	1314	10009	—	—	—	10552
Provost	2522	7115	752	86	638	1942	13955	—	—	28	13983
Ribsey	2397	3527	500	—	77	11	6560	—	—	—	6594
Raymond	2017	5497	562	18	982	219	10405	—	—	—	11006
Ribsey	1472	8925	521	1003	1698	11	13955	—	—	10	16206
Smoky Lake	5097	1275	579	16	702	44	13955	—	—	—	17196
Three Hills	2859	6613	1098	50	935	1997	13955	—	—	63	13959
Turner Valley	1966	7277	249	21	2453	2398	14386	—	—	—	14401
Wainwright	2588	4953	469	27	1544	121	8471	—	—	—	8671
Willington	—	—	—	—	—	252	368	—	—	—	8839
TOTAL	101720	203263	22639	2151	3197	43749	422070	12928	33	747	439845

TOTAL



## DIVISION OF HOSPITAL AND MEDICAL SERVICES

NET EARNINGS FROM SERVICES TO IN-PATIENTS  
FOR THE YEAR ENDED DECEMBER 31, 1959

Hospital	In-Patients - General Services					In-Patients - Additional Services					Total In-Patient Earnings				
	Adults & Children		Newborn	Workmen's Compensation Board		Non-Residents	Other Non-Eligibles	Total	Differential Charges	Non-Benefit Drugs		Ambulance Services	Other	Total	
	Provincial Insurance	Patient Co-Insurance		Federal Government	Patient Co-Insurance										
90 - 175 Beds															
Calgary Children's	14814	33560					6569	--	54943	--	418	8224	--	8642	63846
Calgary Holy Cross	15206	14164					1557	--	59400	15529	--	--	--	15529	74929
Calgary St. Michael's	13208	22531					1261	69	50038	--	278	--	--	278	50317
Drumheller	13208	22531					5443	65	69178	1060	--	--	6	1066	70244
Grande Prairie	15874	30423					6495	--	50905	17912	--	--	72	18014	68918
Lamont	20715	20689					1881	1739	75006	3805	--	--	190	3-95	79001
Red Deer	17021	39533					23206	1373	359470	38336	696	8224	268	47524	406995
TOTAL	96970	183699													
180 Beds & Over															
Calgary General	98248	341352	28432	1623	75	116370	67659	--	637759	262110	--	--	194	262334	916093
Calgary Holy Cross	52206	141644	15738	1169	--	43920	43718	--	299395	194644	191	--	--	194655	494050
Calgary St. Michael's	13208	22531	15893	1508	66	40275	26519	4170	317194	202600	--	--	--	317794	519794
Edmonton Misericordia	62225	15308	3455	2816	135	35955	17625	300	275406	152210	--	--	803	155003	426609
Edmonton Royal Alex	139810	242747	39591	3973	90	128235	67780	105	620830	169104	3986	--	--	177980	793920
Edmonton University	131614	375112	15704	1131	401027	227766	129267	--	1281640	214308	--	--	19291	233598	1515238
Lethbridge Municipal	31895	79327	7103	386	435	11295	10425	--	125860	10425	433	--	--	58723	199549
Lethbridge St. Michael's	22286	80998	3594	195	195	11295	7080	--	125860	10425	433	--	--	95636	202279
Medicine Hat	27950	71591	5515	378	339	16999	26577	--	149750	16602	--	--	797	17399	168749
TOTAL	636649	1632174	146565	12979	402842	632090	396650	4575	3864043	1353354	4610	--	21095	1379048	5243092
GRAND TOTAL	1098818	2579853	243363	20099	421879	859782	513255	8104	5705097	1501253	9296	8662	28906	1547714	7252810

TABLE 471 - POST EARNINGS FROM UNINSURED SERVICES TO OUT-PATIENTS  
FOR THE YEAR ENDED DECEMBER 31, 1959

Hospital	Emergency Unit	Operating Room	Central Supply Room	Pharmacy	Laboratory	Radiology	Physiotherapy	Other	Total	Deductions	Total Net Earnings
1 - 29 Beds											
Beaverlodge	—	264	1101	340	372	2271	—	—	4347	191	4156
Bentley	—	237	—	17	—	1169	—	55	1157	—	1157
Berkyn	—	188	201	8	1	676	—	26	1117	100	1062
Bonnyville K.H.P.	—	231	239	75	—	480	—	—	1062	—	1062
Bow Island	—	473	—	—	21	1289	—	—	1782	—	1782
Canmore	—	3	4	10	—	82	—	—	98	—	98
Carmanagay	—	20	1251	89	54	276	—	387	2076	—	2076
Castor	—	201	52	52	—	1186	—	—	1463	—	1463
Cereal	—	57	10	1011	1	676	—	—	1794	—	1794
Coaldale	—	356	97	100	191	3592	—	—	4756	—	4756
Cold Lake	116	231	89	44	159	1625	—	—	2262	—	2262
Consort	—	159	—	120	—	429	—	—	708	—	708
Coronation	—	332	—	2	—	397	—	—	731	—	731
Daysland	—	197	132	38	136	1808	—	125	2435	48	2386
Devon	—	—	—	—	—	—	—	3427	3427	—	3427
Drayton Valley	2200	—	—	—	357	1098	—	—	3657	397	3260
Edmonton	—	238	—	—	134	643	—	156	1171	—	1171
Elkhora	50	17	87	363	5	186	177	—	885	—	885
Empress	—	446	284	1020	68	396	—	21	2244	—	2244
Glendon	—	118	112	11	4	374	—	—	519	—	519
Hardisty	—	674	134	148	206	1741	—	—	2902	100	2801
Hythe	—	141	17	20	802	3184	—	—	4745	154	4591
Innisfail	—	239	1832	—	—	—	—	—	6050	—	6050
Itasca	—	162	43	4	—	258	—	4	258	—	258
Jasper	—	161	43	19	38	428	—	—	689	—	689
Killam	—	717	695	768	404	2673	151	274	5681	282	5398
Magrath	—	98	93	8	14	1230	—	220	1663	—	1663
Manning	—	407	—	1052	—	1230	—	—	2371	100	2271
Medicine Hat	—	142	126	12	64	851	—	224	1340	—	1340
Medicineville	54	2003	337	209	53	543	—	—	3218	—	3218
Mayerthorpe	—	—	—	—	—	—	—	—	—	—	—
McMurray	—	144	259	395	86	1608	10	59	2559	524	2034
Mundare	—	6	172	313	69	672	—	—	1230	—	1230
Nyssa	—	458	355	339	145	694	22	—	2012	—	2012
Oyen	—	572	61	1767	188	1156	—	—	3693	—	3693
Provost	—	420	289	201	80	3447	—	—	4436	—	4436
Ridgway	—	387	162	97	77	1575	—	267	2564	—	2564
Raymond	—	43	255	55	111	339	12	—	815	—	815
Rimbey	—	472	413	119	47	1538	—	—	2618	—	2618
Smoky Lake	—	111	121	167	—	935	—	38	1370	—	1370
Three Hills	125	164	96	223	—	989	—	—	1597	57	1540
Turner Valley	6	600	416	37	—	51	—	27	1126	—	1126
Wainwright	—	268	510	218	310	1215	—	—	2612	—	2612
Willingdon	—	238	163	244	361	856	259	—	2121	—	2121
TOTAL	2551	12337	10248	9944	4680	46216	631	5310	91891	1953	89933

Hospital	Emergency Unit	Operating Room	Central Supply Room	Pharmacy	Laboratory	Radiology	Physiotherapy	Other	Total	Deductions	Total Net Earnings
30 - 49 Beds											
Alhambra	126			33	76	2864	—	—	3653	—	3653
Barf	1263		200	30	271	2451	848	6	5924	—	5924
Bartlett	1825		55	—	421	1512	151	—	3870	—	3870
Bassano	634		126	—	88	1513	—	—	2360	—	2360
Bismore	363		549	318	376	6434	11	—	8090	—	8090
Bonnyville St. Louis											
Brooks	811		—	—	526	1544	—	—	2884	—	2884
Brooks	—		—	568	659	2051	—	—	3308	—	3308
Calgary Grace	—		—	—	—	—	—	787	787	—	787
Cardston	2008		—	212	431	3235	—	—	5886	—	5886
Clareholm	—		—	—	1399	3914	—	—	5223	—	5223
Didsbury	—		—	—	—	—	—	—	—	—	—
Edmonton	—		—	4	484	4708	—	35	5231	—	5231
Elk Point	425		210	159	184	3699	—	—	4675	202	4477
Elk Point	145		179	179	21	148	32	3	593	—	593
Fairview	57		57	295	236	3522	—	—	5393	200	5193
Ft. McLeod	818		521	—	236	4044	—	—	5002	—	5002
729	—		23	—	—	—	—	—	—	—	—
Ft. Vermilion	398		—	4467	241	346	—	2	5454	—	5454
Gladbad	467		22	675	75	711	43	—	1999	15	1984
High Prairie	199		565	5	382	960	—	—	2111	—	2111
High Prairie	1735		—	504	466	8878	39	771	12412	1053	11359
High River	1280		499	292	248	4082	—	—	6322	—	6322
Lacombe	—		—	—	—	—	—	—	—	—	—
Lac La Biche	380		—	54	287	6440	—	—	1361	—	1361
McLennan	528		37	35	194	2347	29	—	3193	91	3102
Olds	402		192	45	82	1568	—	23	2893	—	2893
Peace River	283		583	43	344	3749	—	221	5565	—	5565
Peace River	865		1172	898	1185	6359	187	4	10669	150	10519
Pincher Creek	—		—	—	—	—	—	—	—	—	—
Ponoka	135		3176	465	490	49	—	—	4314	—	4314
Rocky Mt. House	356		217	5	15	1624	243	—	2528	—	2528
Spirit River	421		74	5	121	840	122	—	1413	—	1413
Settler	354		6	25	168	848	—	88	1459	—	1459
St. Paul	905		—	—	4	778	—	—	1687	—	1687
St. Paul	—		—	—	—	—	—	—	—	—	—
Taber	1187		429	450	223	3336	—	—	5626	—	5626
Tofield	100		106	264	374	3429	—	—	5250	—	5250
Trochu	327		93	41	1913	1913	—	—	2400	—	2400
Two Hills	52		97	268	429	622	403	35	1844	—	1844
Vegreville	—		—	—	75	1826	—	389	2287	—	2287
Vegreville	676		426	131	530	2383	24	—	4170	—	4170
Vermilion	287		16	661	—	3606	—	—	4992	—	4992
Wainwright	30		2720								

TOTAL

NET EARNINGS FROM UNINSURED SERVICES TO OUT-PATIENTS  
FOR THE YEAR ENDED DECEMBER 31, 1959

Hospital	Emergency Unit	Operating Room	Central Supply Room	Pharmacy	Laboratory	Radiology	Physiotherapy	Other	Total	Deductions	Total Net Earnings
90 - 179 Beds											
Calgary Children's	6	--	--	7	204	4310	719	3174	8420	874	7546
Camrose	--	516	865	--	633	2123	--	--	4536	98	4438
Oriskany	1698	448	--	--	867	7811	100	--	10864	151	10710
Grande Prairie	--	2040	3408	1083	6518	21683	4192	--	38924	1608	37316
Lacombe	--	24	--	--	19	--	3293	--	3336	--	3336
Red Deer	1347	23	1090	408	700	4198	--	107	8362	305	8057
TOTAL	3491	3451	5363	1498	9941	40115	8304	3281	74442	3119	71323
180 Beds & Over											
Calgary General	48907	2431	4053	1787	10870	36267	12248	2503	119065	--	119065
Calgary Holy Cross	23351	1852	--	--	4928	26538	1958	--	58627	1249	57378
Edmonton General	25613	1111	--	1258	16165	48342	1197	--	94022	5390	88632
Edmonton Rivercourt	16724	6866	--	5804	6822	11250	2642	--	43848	2633	41216
Edmonton Royal Alex	56024	1359	12155	2752	4745	41984	12879	170	132068	7718	124351
Edmonton University	46391	5070	--	50867	36984	76441	35824	24722	276098	8636	267462
Lethbridge Municipal	9340	13235	--	--	13235	40460	4204	--	47239	--	42535
Lethbridge St. Michael's	372	1429	72	1	5074	10651	5037	--	22636	--	22636
Medicine Hat	4638	--	1774	--	5192	3691	--	--	15995	181	15813
TOTAL	226564	18888	18094	62269	104035	295624	76099	27796	828998	25827	803072
GRAND TOTAL	232867	53784	46677	98599	132953	496686	87272	38419	1182207	34277	1147924

## DIVISION OF HOSPITAL AND MEDICAL SERVICES

TABLE 48: - ANALYSIS OF VALUE AND DEPRECIATION OF MAJOR EQUIPMENT  
BY HOSPITAL, 1959

Hospital	Plant Assets				Depreciation of Plant Assets				Net Book Value At End of Year
	Balances at January 1, 1959	Assets added in 1959	Less Assets Retired in 1959	Balances at December 31, 1959	Balances at January 1, 1959	Depreciation Provided During 1959	Less: Accumulated Depreciation on Assets Retired	Balances at December 31, 1959	
1 - 29 Beds									
Beverly Lodge	37570	2201	265	39207	11023	2780	40	13763	25444
Bentley	19169	7877	---	27046	14012	2747	---	16759	10715
Berwyn	39954	1984	110	40825	12645	3496	110	36030	5768
Bonnyville K.H.P.	20916	1293	---	22209	10452	1878	---	11038	10581
Bow Island	751	65904	4	66651	---	5268	---	5268	61583
Camrose	1950	2236	---	4187	119	282	---	381	3806
Cardinal	3100	6253	---	20383	760	---	---	760	19623
Castor	38789	1115	120	43793	8577	3066	---	11702	32091
Cereal	1115	1195	---	2310	13199	410	---	13609	8606
Coaldale	26813	1555	---	28367	11046	2846	---	13671	11676
Cold Lake	39728	6168	100	45796	4385	2290	---	6675	39121
Consort	20419	2869	---	23018	11351	1587	---	12933	10085
Dawson	21143	617	---	21760	17402	2176	5	19578	2182
Devon	7986	277	---	7293	43519	5110	---	48633	24365
Devon	29692	268	---	29961	8517	2251	---	10768	19193
Drayton Valley	52168	23075	84	75159	1209	4421	2	5628	69531
Edenville	37785	3357	---	41142	26569	277	---	26816	11234
Elmora	16493	3924	131	20286	13049	2059	66	15042	5274
Elmora	25845	2212	---	28057	17843	2606	---	20449	5608
Glenora	27880	648	---	28528	2865	2865	---	15754	12894
Hardisty	43085	2464	---	45548	20381	3187	---	23767	21781
Hythe	9772	1932	410	11294	6372	636	369	6639	1655
Initial	65150	4417	---	69567	32861	6957	---	39917	28650
Jasper	16530	2157	703	17983	10988	770	587	11172	6811
Killarney	40011	2496	---	42507	26416	2969	---	29385	13122
Killam	44671	11816	200	56287	2283	5940	133	32225	24063
Magrath	42627	5990	---	48617	2346	2346	---	24315	24302
Manning	17462	1203	---	18665	5312	1649	---	16814	11504
Mannville	26502	315	---	26817	23439	2652	---	26091	426
Mayerthorpe	49163	2001	---	51164	21597	2957	---	24554	26610
McMurray	46778	1852	---	48631	35734	2918	---	38652	9979
Mundare	41131	1221	---	42352	4383	2944	---	21432	29970
Myram	12557	2634	7235	36551	15944	275	---	18275	18376
Oyen	3580	3580	---	16137	6980	775	---	7356	8781
Provost	54348	5857	---	60204	19426	4033	---	23459	36765
Red Deer	20446	146	---	20592	17354	1195	---	19549	9451
Raymond	24094	110	---	24204	15362	120	---	15482	10212
Rim-ey	31329	2679	72	31329	29098	2291	---	31329	---
Smoky Lake	14205	2679	---	16882	4532	1162	---	3675	13137
Three Hills	47797	2834	635	49996	44504	4978	635	48947	1119
Trainer Valley	51229	3848	---	25078	7956	2510	---	10465	14612
Wainwright	3177	1686	10587	23176	14543	1131	---	15674	7502
Willingdon	38951	1080	---	40031	20450	2350	---	22300	17231
TOTAL	1346720	207316	20636	1533400	707088	101948	1947	807089	726311

ANALYSIS OF VALUE AND DEPRECIATION OF MAJOR EQUIPMENT  
BY HOSPITAL, 1959

Hospital	Plant Assets				Depreciation of Plant Assets				Net Book Value at End of Year
	Balances at January 1, 1959	Assets added in 1959	Less: Assets Retired in 1959	Balances at December 31, 1959	Balances at January 1, 1959	Depreciation Provided During 1959	Less: Accumulated Depreciation on Assets Retired	Balances at December 31, 1959	
30 - 89 Beds									
Athabasca	65720	4423	---	70144	41369	3511	---	44880	25264
Banff	190454	10677	---	201131	26815	14109	---	40924	160277
Barriead	92821	7884	---	101115	24047	7669	---	31715	69400
Calgary	55559	5559	5367	69997	16574	1332	3624	55915	11082
Blainmore	131916	5249	---	137245	101534	3612	---	108986	30279
Bonnyville St. Louis									
Brooks	76950	9152	---	86102	22145	4205	---	26350	57752
Calgary Grace	52953	5022	---	57975	15278	4584	---	19862	38113
Cardston	98983	7229	---	106212	39861	10246	---	50108	54104
Clareholm	27920	74287	10295	99122	10295	9191	10295	9191	82721
Clareholm	57212	14030	---	67642	31924	6757	---	38681	28861
Daysbury	51326	11678	50	62954	28157	4319	90	28266	30328
Edson	66980	186	---	67166	32777	4564	---	37166	30328
Elk Point	50821	4471	818	54474	22559	3934	332	26161	28813
Fairview	41694	11147	175	52666	30171	4736	158	34749	17917
Ft. McLeod	73622	5936	---	79558	9145	2417	---	11562	67996
Ft. Vermilion	44695	1271	---	45966	25944	3417	---	25992	19974
Galena	67903	10271	---	78174	28834	2037	---	25371	52403
Hanna	62873	7431	---	70304	20344	1874	---	31004	37250
High Prairie	70022	7471	471	77022	40713	4592	471	33473	43549
High River	103531	67657	33937	137251	56635	4975	---	61610	75641
Lacombe	45427	5828	---	51254	33614	2112	---	35756	15498
Lac La Piche	70396	12981	---	83377	15050	5815	---	20864	62513
Lester	---	---	---	---	---	---	---	---	---
McLennan	101701	14094	2895	112900	34482	9222	2052	41452	71458
Olds	88431	2450	---	82881	40954	3315	---	44269	38612
Peace River	47962	4052	---	52014	29440	3469	---	32909	19105
Picher Creek	96916	32650	---	129567	26605	6137	---	32742	96855
Ponoka	75176	1155	---	76331	58749	4796	6131	57414	18917
Rocky Mt. House	45968	10536	---	56504	28734	2838	---	31542	25260
Spirit River	67988	1478	---	71167	21518	5338	---	28956	44311
Stettler	84792	2945	80	87647	53340	8765	---	62105	25812
St. Paul	67646	5539	---	73185	46259	3842	---	50101	23784
Taber	128621	4539	---	133160	84315	454	---	84769	48391
Torild	55566	208	---	55774	24826	3904	---	28730	27044
Trochu	66542	1644	---	68186	54581	4773	---	59354	8932
Two Hills	59129	11617	11426	59320	44957	4307	23484	26491	33739
Vermilion	92891	25164	---	118056	32682	7660	---	12012	77114
Vermilion	81437	2371	275	84033	51860	8403	---	60263	23770
Viking	73771	2977	---	76748	37697	5372	---	43069	33479
Vulcan	76366	53	---	76219	64119	5335	---	69454	6765
Wainwright	67237	20494	6849	80883	37468	5413	4224	38656	42227
Westlock	151463	3121	1478	153106	104118	5967	---	95675	60864
Wetaskiwin	84732	4151	---	87405	30200	5361	---	35361	51944
TOTAL	3175906	482782	74045	3584643	1557669	227225	50921	1734073	1850370



## DIVISION OF HOSPITAL AND MEDICAL SERVICES

ANALYSIS OF VALUE AND DEPRECIATION OF MAJOR EQUIPMENT  
BY HOSPITALS, 1959

Hospital	Plant Assets				Depreciation of Plant Assets			Net Book Value At End of Year
	Balances at January 1, 1959	Assets added in 1959	Less: Assets Retired in 1959	Balances at December 31, 1959	Balances at January 1, 1959	Depreciation Provided During 1959	Less: Accumulated Depreciation of Assets Retired	
90 - 179 Beds								
Calgary Children's Hospital	145972	5120	---	151092	91615	10576	---	48901
Calgary General Hospital	45763	5360	---	51123	45796	5534	---	43693
Drumheller Hospital	159800	25700	950	184550	67177	10003	659	112719
Grande Prairie Hospital	111920	12275	---	124195	17511	5586	---	101083
Lamont Hospital	196379	6131	515	201994	129314	14204	40	58517
Red Deer Hospital								
TOTAL	633334	54586	1465	736954	324633	48053	679	364948
180 Beds & Over								
Calgary General Hospital	752642	54524	1863	782203	160198	47951	458	574612
Calgary Children's Hospital	75981	5120	650	834528	291185	56551	491	487433
Edmonton General Hospital	466819	51689	---	521509	199318	41080	---	281111
Edmonton Miskiwic Hospital	877230	70266	---	947597	152846	---	---	794753
Edmonton Royal Alex Hospital								
Edmonton University Hospital	1906097	327621	12086	2221634	117206	41176	1651	2201634
Lethbridge Municipal Hospital	459819	17850	7889	469780	52200	38030	---	313694
Lethbridge St. Michael's Hospital	453138	18798	14297	457639	263586	---	96	141854
Medicine Hat Hospital	487775	12215	955	499239	36588	---	---	424717
TOTAL	6179287	592679	37740	6734226	1220927	278783	2696	5239207
GRAND TOTAL	11395747	1337763	119886	12589724	3810317	654014	56113	8181056

\* Not available

\*\* Depreciation not available





ANALYSIS OF VALUE AND DEPRECIATION OF BUILDINGS AND BUILDING  
SERVICE EQUIPMENT BY HOSPITAL, 1959

Hospital	Plant Assets				Depreciation of Plant Assets				Net Book Value At End of Year
	Balances at January 1, 1959	Assets added in 1959	Less: Assets Retired in 1959	Balances at December 31, 1959	Balances at January 1, 1959	Depreciation Provided During 1959	Less: Accumulated Depreciation on As- sets Retired	Balances at December 31, 1959	
90 - 179 Beds									
Alberta Children's									
Canroae	665624	---	---	665624	193439	16641	---	210078	455546
Drumheller	674278	2573	---	676851	254069	16924	---	270992	405959
Lamont	1110692	333737	---	1444429	163887	38029	---	201926	911075
		341315	---	675551	35793	8343	---	44136	631415
Red Deer	667919	255946	1225	922640	166068	16486	429	182125	740515
TOTAL	3432350	602644	1225	4033767	813255	96433	429	909257	3144510
180 Beds & Over									
*Calgary General									
Calgary Holy Cross	10152495	81679	---	10234173	532541	65463	---	596804	10234173
Edmonton General	4194382	1700	---	4196082	1091069	100001	---	1110070	4196082
Edmonton Misericordia	2011767	1343124	---	3354891	531408	50294	---	581702	1430065
Edmonton Royal Alex	6412337	---	---	7756461	1295344	133148	---	1142643	6325868
*Edmonton University	10629770	2012375	---	12642145	335371	97533	---	429933	12642145
Lethbridge Municipal	3360396	---	---	3360396	258669	15462	---	179978	2908493
Lethbridge St. Michael's	302477	656	---	303133	93969	9426	---	139325	2908493
Medicine Hat	3082331	20394	---	3072638	---	---	---	---	2991561
TOTAL	45009252	3460387	---	48469839	4127371	564004	---	4691375	43778464
GRAND TOTAL	65010056	5337119	50126	71055669	8791554	1277437	2169	10047822	61257247

\* Depreciation not available

TABLE 50: - PROVINCIAL PAYMENTS TO GENERAL HOSPITALS FOR OPERATING COSTS  
AND EQUIPMENT PURCHASES, 1959

Hospital	Payments For Operating Purposes					'Equipment Payments			Grand Total
	Co-Insurance	Approved Cost	Bad Debt	Out-Patient Pensioner	Total	Shareable Equipment	Non-Shareable Equipment	Total	
1 - 29 Beds									
Beverly	2425.50	51824.58	815.90	108.30	55171.28	779.95	---	779.95	55951.23
Bentley	1502.50	46334.53	---	56.00	47893.03	2420.95	1520.46	3970.46	51863.49
Berwyn	1888.50	54110.77	552.00	7.00	56553.27	1337.93	4779.57	6117.50	62670.77
Bowling Green	2676.50	42481.65	---	24.25	42505.90	1293.36	---	1293.36	43799.26
Bow Island	1721.00	54489.14	7.25	24.00	56241.39	55186.09	533.20	55719.29	111960.68
Camrose	1602.50	38258.19	39.25	---	38297.94	2175.88	---	2175.88	42775.82
Camungay	1026.50	41563.70	---	16.00	41579.70	4476.29	273.22	4749.51	47555.71
Castor	3681.00	75570.09	43.50	---	75613.59	7928.84	---	7928.84	83542.43
Cesal	1305.50	41700.50	---	---	41700.50	2950.00	---	2950.00	44650.50
Coalville	3058.50	43158.22	195.62	213.50	46605.84	---	---	---	46605.84
Gold Lake	4165.50	69053.98	---	41.00	73240.43	1475.35	---	1475.35	74715.83
Consort	2376.50	50830.61	---	---	52206.61	1865.37	1730.55	3595.92	56802.53
Coronation	2251.50	47729.97	---	---	47729.97	---	---	---	49880.47
Daysland	2872.50	63081.11	---	47.50	63128.61	---	---	---	66001.11
Devon	711.00	35649.00	---	47.00	36120.00	---	---	---	36407.00
Drayton Valley	4438.00	92886.09	---	---	96939.09	267.85	---	267.85	97206.94
Edenville	3998.50	63398.81	204.75	55.00	65291.09	1091.83	993.30	2085.13	67381.22
Elmora	1399.00	41226.96	42.75	---	41269.71	136.00	---	136.00	43434.49
Empress	1554.00	39642.70	184.50	75.15	41552.20	---	---	---	42469.80
Glenora	1854.50	40414.25	117.52	---	41531.77	1274.60	---	1274.60	42806.37
Hastley	3156.50	48659.16	232.25	22.00	52049.41	---	---	---	52281.61
Hythe	3156.50	33015.76	---	2.00	34571.26	---	---	---	34573.26
Imperial	4887.50	115178.77	213.25	265.00	115737.07	---	---	---	115737.07
Islay	1658.50	35551.58	---	15.00	37225.08	1289.16	---	1289.16	38514.24
Jasper	3622.00	48686.66	---	---	52318.66	1290.67	---	1290.67	53609.33
Kilam	3775.00	79565.85	651.14	271.35	79163.34	969.83	---	969.83	79133.17
Kilman	3452.00	61228.64	71.60	34.00	61786.24	3690.00	---	3690.00	65476.24
Marathon	2618.50	47764.56	---	---	51586.86	---	---	---	51586.86
Manville	3775.00	73706.08	32.75	33.00	73771.83	315.15	---	315.15	74086.98
Mayerthorpe	3709.00	73706.08	570.69	36.00	74252.77	1394.49	---	1394.49	75647.26
Murray	2004.50	59289.15	605.99	16.00	61915.64	---	---	---	62331.69
Nursing	3423.00	41843.32	---	---	45221.32	---	---	---	45221.32
Norham	4232.00	62636.29	340.32	55.00	63038.11	---	---	---	63038.11
Oryman	3775.00	53231.90	130.08	149.00	53501.98	1787.54	---	1787.54	55299.52
Provost	3775.00	94687.65	190.12	24.75	94902.42	2975.68	778.27	3753.95	98656.37
Radway	2892.50	56013.12	---	100.80	56113.92	1049.81	526.00	1575.81	57689.73
Raymond	3581.50	53391.03	197.57	293.00	53871.60	---	---	---	54169.17
Rimbey	5170.00	93528.00	118.00	10.00	93646.00	1460.00	---	1460.00	95106.00
Smoky Lake	3668.50	42832.96	216.32	---	42849.28	---	---	---	43215.56
Three Hills	3927.00	80222.92	101.79	162.50	80483.21	261.46	---	261.46	80744.67
Turner Valley	2218.00	77132.99	516.50	33.00	77642.49	---	---	---	78158.99
Willina	3509.00	38557.46	169.20	23.00	38749.66	550.45	---	550.45	39299.11
Willingdon	3047.50	40459.51	169.20	23.00	40651.51	167.56	2305.84	2473.40	43124.91
Norco	882.00	15523.00	95.05	2.00	15620.05	346.30	---	346.30	15966.35
TOTAL	136262.00	2122307.82	6412.49	2625.10	2575697.41	93447.43	9113.79	107591.22	2665198.43

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	Payments For Operating Purposes					Equipment Payments		Grand Total
	Co-Insurance	Approved Cost	Bad Debt	Out-Patient Pensioner	Total	Shareable Equipment	Non-Shareable Equipment	
30 - 69 Beds								
Atthabasca	7937.80	97305.40	1189.54	119.00	104551.74	1367.62	—	107919.36
Banff	2831.60	114336.32	663.50	54.00	120776.02	494.82	—	120776.02
Barnhard	12838.40	17710.21	157.12	144.00	130849.73	4950.80	—	135800.53
Bassano	3073.50	70400.54	60.85	7.00	77131.89	322.00	—	77453.89
Blairmore	10476.20	138563.86	—	280.25	146920.31	3281.90	215.14	152817.35
Bonnyville St. Louis	4553.40	105924.49	1533.24	107.25	111118.38	5645.17	—	119763.55
Calgary	7939.80	284.00	284.00	89.00	217884.02	3479.70	—	221313.72
Calgary Grace	15076.80	16334.63	4.00	18.00	21808.43	4180.23	—	18007.13
Cardston	4789.20	109364.75	—	230.00	114383.95	6030.72	—	120414.67
Clareholm	4298.60	238.97	—	38.50	115663.70	—	—	116663.70
Didbury	5034.40	129690.09	379.69	97.00	135251.18	1225.36	—	136476.54
Edson	6812.00	68422.53	708.89	77.00	76020.42	186.42	590.24	76797.08
Estevan	1859.00	834.24	834.24	17.50	191235.82	758.35	—	191994.17
Fairview	7971.00	131779.48	406.20	258.40	134234.04	1608.75	—	134842.79
Ft. McLeod	4449.20	126679.50	—	96.50	134225.00	24281.52	2900.10	159406.62
Ft. Vermilion	3765.40	57198.48	167.75	14.00	60977.38	—	—	60977.38
Galahad	3765.40	17133.62	—	51.00	91228.97	8915.68	498.84	103643.49
Hanna	7978.60	172899.15	247.17	672.00	181796.92	9397.17	5683.91	198378.00
High Prairie	7389.60	131579.63	9832.61	409.00	141390.84	1685.40	984.00	147760.24
High River	6875.40	183717.41	585.61	66.25	199004.67	47319.80	652.47	241066.94
Lacombe	8354.30	171268.87	150.60	30.00	179824.27	733.68	—	180562.95
Lae La Biche	9910.20	118771.53	2403.85	50.50	131136.08	1607.05	—	132743.13
Lloydminster	7404.00	166445.33	577.81	40.00	174467.14	—	—	174467.14
McLennan	8365.20	142446.86	3540.08	—	154352.14	1047.10	—	155399.24
Olde	6927.40	128439.27	384.65	117.50	132868.82	260.15	—	133128.97
Lacombe	8354.30	171268.87	150.60	30.00	179824.27	733.68	—	180562.95
Peace River	8119.60	158270.70	656.34	159.70	164197.34	2940.67	—	167138.01
Pincher Creek	6956.80	118871.30	231.00	12.00	127031.43	4352.67	—	132559.12
Ponoka	6648.00	130210.73	200.85	25.00	137134.58	—	1125.55	138360.13
Rocky Mt. House	6272.40	65900.70	305.42	103.00	72581.52	2167.15	2176.35	76924.92
Spirit River	10176.60	118622.51	1229.12	29.00	131038.23	—	—	131038.23
Stettler	8939.60	182920.57	261.37	10.00	192220.54	2757.67	—	194978.21
St. Paul	11841.90	233107.23	982.58	28.00	240414.54	3044.04	—	243458.58
Taber	9675.80	235107.23	—	84.50	240414.54	2447.43	—	242861.97
Telford	5861.60	94882.18	—	102.50	97946.38	—	—	97946.38
Trochu	3602.60	48447.48	—	23.00	52073.08	—	—	52073.08
Two Hills	6089.80	76980.87	426.82	136.00	83623.49	2339.08	2602.24	88566.21
Verdun	16293.80	228445.96	1079.85	73.50	242899.11	3704.16	—	246603.27
Vegreville	10811.00	118110.00	—	157.00	119661.70	406.10	—	119704.80
Viking	4978.00	108971.84	220.10	353.25	110224.83	—	—	112502.19
Vulcan	3793.80	85073.19	—	—	88868.99	—	—	88868.99
Wainwright	8109.20	140961.49	1108.86	486.80	150966.35	1154.08	—	152120.43
Westlock	14441.20	132726.87	487.77	96.00	146761.84	1028.15	—	147789.99
Wetaskiwin	10535.20	144757.61	256.37	25.00	152574.18	1250.67	—	153824.85
TOTAL	331165.10	5550163.80	26112.82	5149.70	5912571.42	213722.06	19554.24	6115817.72



## DIVISION OF HOSPITAL AND MEDICAL SERVICES

PROVINCIAL PAYMENTS TO GENERAL HOSPITALS FOR OPERATING COSTS  
AND EQUIPMENT PURCHASES, 1959

Hospital	Payments For Operating Purposes					Equipment Payments			Grand Total
	Co-Insurance	Approved Costs	Bad Debt	Out-Patient Pensioner	Total	Shareable Equipment	Non-Shareable Equipment	Total	
90 - 179 Beds									
Calgary Children's	14814.00	404831.72	3846.29	—	423494.01	9891.74	1092.20	10983.94	434477.95
Calgary General	54150.00	371189.99	1107.67	62.50	391180.76	—	—	—	391180.76
Drumheller	15526.60	257047.77	1871.46	323.50	307948.33	4257.54	2207.91	6465.35	314413.68
Grande Prairie	19174.60	363467.77	187.00	837.00	385311.91	45623.84	—	45623.84	431055.75
Lacombe	21602.80	255011.76	794.17	44.00	277260.25	9094.33	2197.51	11291.84	288512.07
Red Deer	22394.60	449406.56	1578.46	106.50	473636.12	1379.13	915.05	2294.18	475980.30
TOTAL	112321.00	2134630.24	10869.62	1401.50	2259211.36	70246.58	6412.57	76659.15	2335870.51
180 Beds & Over									
Calgary General	133244.00	3460790.57	29065.58	1621.70	3624701.85	316885.94	—	36895.94	3641587.79
Calgary General	54150.00	1522871.35	7523.26	348.00	1670032.61	20660.12	—	20660.12	1690692.73
Calgary General	99000.00	1566000.00	16515.02	2589.60	1732157.52	15871.01	—	15871.01	1748038.53
Edmonton General	77230.00	1566900.00	1073.90	1073.90	1664929.88	24585.01	—	33828.07	1698757.95
Edmonton General	177938.00	2914086.23	30031.70	26324.60	3124688.53	31005.10	—	33005.10	3157693.63
Edmonton University	147188.00	3624463.93	37050.28	2387.90	3811595.11	178897.45	—	178897.45	3990492.56
Edmonton University	38422.00	906497.00	4667.38	1159.10	950745.48	13129.20	5244.15	18373.35	969082.83
Edmonton University	679331.73	67945.00	331.00	—	709411.73	6219.03	753.00	6972.03	716383.85
Edmonton University	33795.00	825392.78	5566.93	186.65	829896.36	4451.35	11176.77	15628.12	905524.48
TOTAL	786738.00	17155670.49	156970.20	12830.45	18108169.14	333704.21	26416.98	360121.19	18468290.33
GRAND TOTAL	1356486.10	27262742.35	196394.13	22006.75	28837559.33	716120.28	61527.58	777647.86	29615207.19





**PART III**

**ANNUAL REPORT**

OF THE

**Bureau of Vital Statistics**

OF THE

DEPARTMENT OF PUBLIC HEALTH  
PROVINCE OF ALBERTA

1959



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# DIVISION OF VITAL STATISTICS

John Colville, Director

This is the fifty-fifth Annual Report of the Division of Vital Statistics and is for the year 1959.

The report shows insignificant decreases in the birth, death and marriage rates and a considerable increase in the divorce rate as compared to the preceding year. Favourable decreases will also be noted in the maternal death, stillbirth and infant death rates. The natural increase of births over deaths was 23.8, the same as in 1958.

## POPULATION

The population for the Province of Alberta for the year 1959 has been estimated by the Dominion Bureau of Statistics at 1,243,000. All rates in this report are, therefore, based on this figure. A table commencing on page 5 shows the population by census divisions, cities, towns and villages for the census years 1951 and 1956.

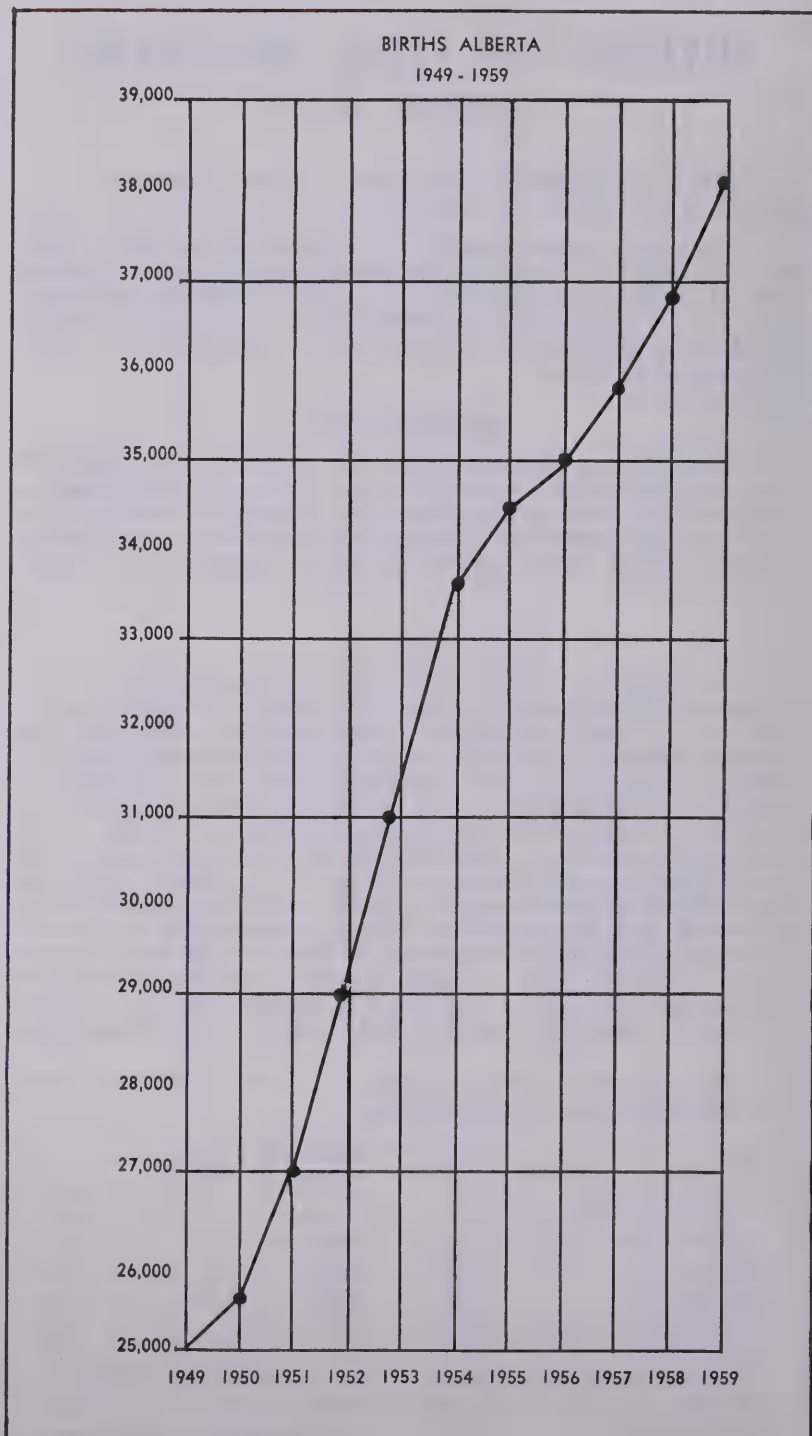
## BIRTHS

The number of children born to residents in the province numbered 38,080, of which 19,562 were males and 18,518 females. The ratio of male to female births was 1,056 males to 1000 females. Although the birth rate has been decreasing gradually from the high record of 32.3 per population in the year 1954, the rate of 30.6 for 1959 is very favourable in comparison with the rate for Canada of 27.5. Ninety-eight percent or 37,305 of the total births occurred in hospital. Multiple births comprised three sets of triplets and 379 sets of twins. Of the total number of births 37,469 were attended by physicians, 189 by nurses, 227 by midwives, and 195 were unattended or attendance not stated. The number of births registered in the cities of the province were as follows: Calgary, 7,259; Camrose, 170; Drumheller, 124; Edmonton, 8,604; Grande Prairie, 304; Jasper Place, 1099; Lethbridge, 913; Medicine Hat, 602; Red Deer, 634, and Wetaskiwin, 148.

The following table shows the most recent birth rates for Canada and certain other countries:

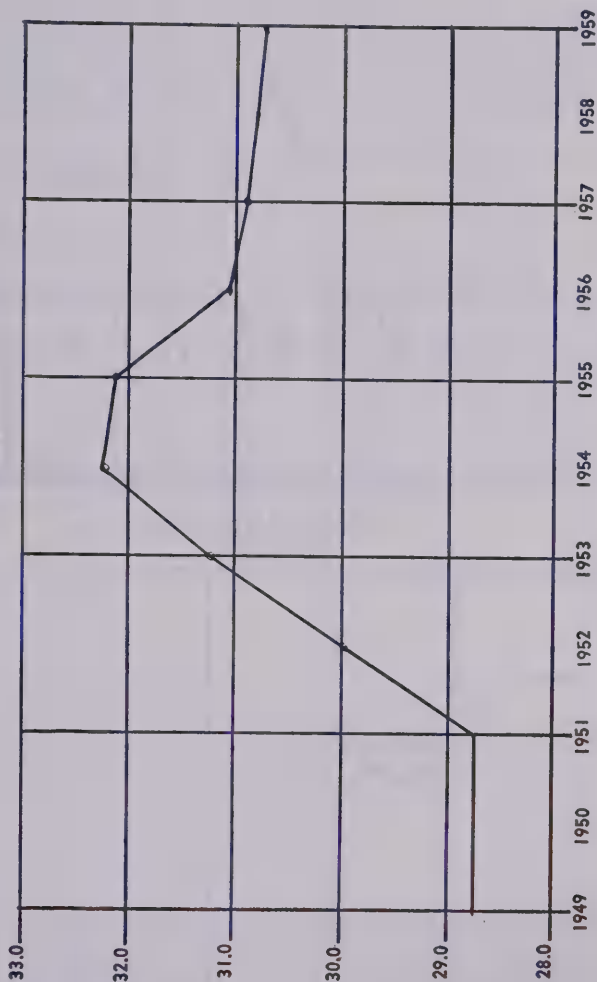
Canada .....	27.5	United States .....	24.1
Newfoundland .....	33.0	Australia .....	22.6
Prince Edward Island .....	26.7	New Zealand .....	26.5
Nova Scotia .....	26.6	Denmark .....	16.4
New Brunswick .....	27.9	Finland .....	18.4
Quebec .....	28.5	France .....	18.3
Ontario .....	26.4	Italy .....	18.4
Manitoba .....	25.8	Austria .....	17.5
Saskatchewan .....	27.0	Norway .....	18.0
Alberta .....	30.6	Netherlands .....	21.3
British Columbia .....	25.5	Portugal .....	23.5
England and Wales .....	16.5	Spain .....	21.8
Scotland .....	19.1	Sweden .....	14.1
Northern Ireland .....	21.9	Switzerland .....	17.8
Ireland (Republic) .....	21.1	Western Germany .....	17.6

## BUREAU OF VITAL STATISTICS



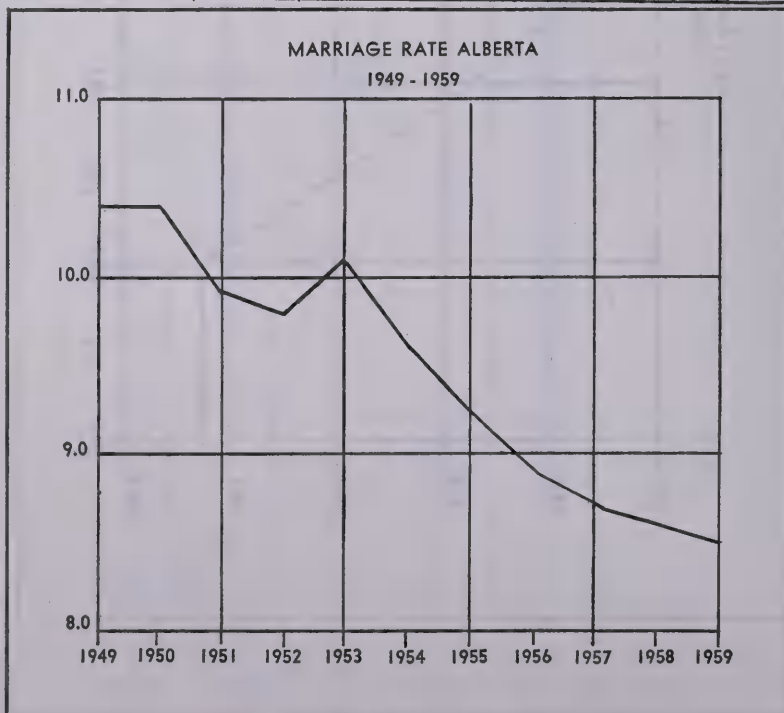
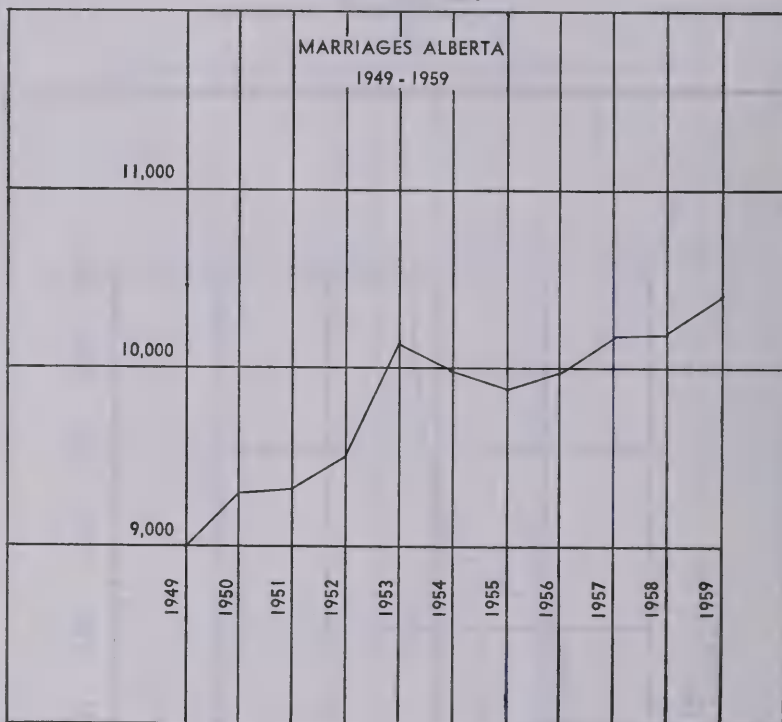
## BIRTH RATE ALBERTA

1949 - 1959



## BUREAU OF VITAL STATISTICS

## MARRIAGES



During the year 10,402 marriages were registered, an increase of 216 over the previous year. The marriage rate was 8.4 per 1000 population and this is the eleventh straight year Alberta has held the highest rate for the provinces of Canada. Five hundred and sixty-three of the grooms were divorced, 363 widowers and 9,476 bachelors, and of the brides 591 were divorced, 500 widows and 9,312 spinsters. Two hundred and nineteen grooms and 2,407 brides were 18 years of age and under, and 25 grooms and 12 brides were 75 years old and over.

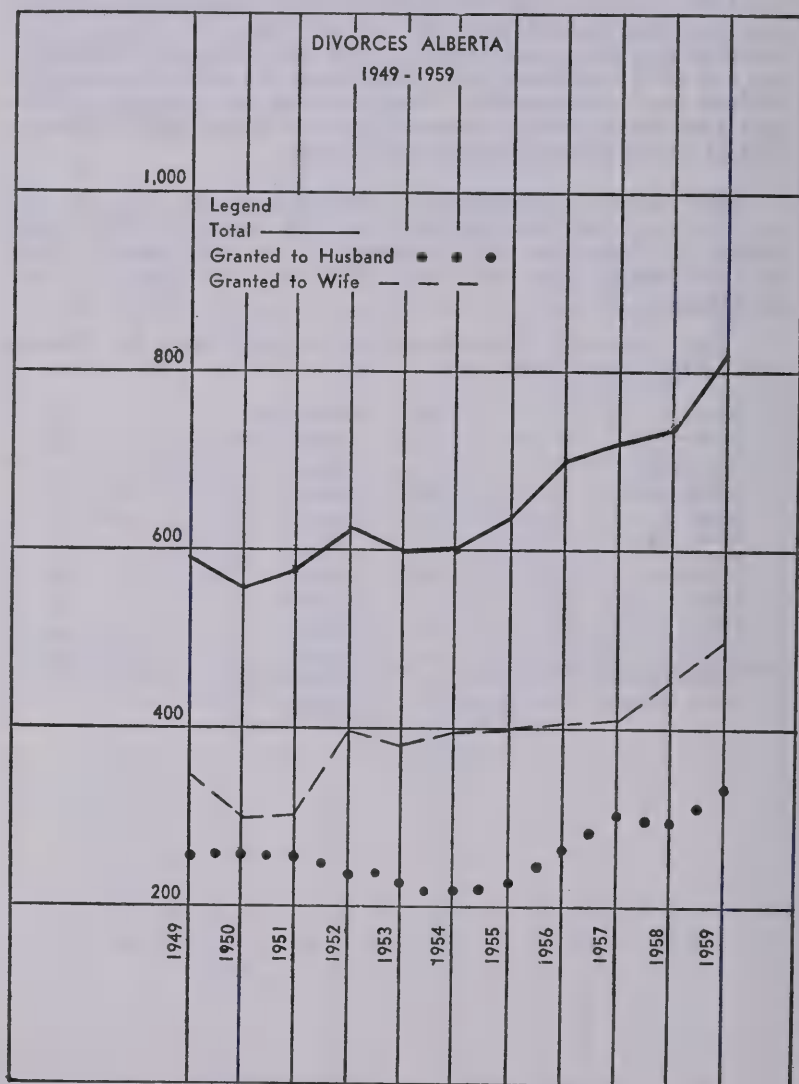
The number of marriages registered in the cities of the province were as follows: Calgary, 2,230; Camrose, 86; Drumheller, 61; Edmonton, 3,229; Grande Prairie, 117; Jasper Place, 23; Lethbridge, 385; Medicine Hat, 274; Red Deer, 212, and Wetaskiwin, 59.

The following table shows the marriage rates for Canada and certain other countries:

Canada .....	7.6	United States .....	8.5
Newfoundland .....	6.4	Australia .....	7.4
Prince Edward Island .....	6.3	New Zealand .....	7.9
Nova Scotia .....	7.4	Denmark .....	7.2
New Brunswick .....	7.3	Finland .....	7.2
Quebec .....	7.4	France .....	7.1
Ontario .....	7.8	Italy .....	7.8
Manitoba .....	7.5	Austria .....	8.3
Saskatchewan .....	7.1	Norway .....	6.5
Alberta .....	8.4	Netherlands .....	7.8
British Columbia .....	7.6	Portugal .....	8.4
England and Wales .....	7.5	Spain .....	8.1
Scotland .....	7.8	Sweden .....	6.3
Northern Ireland .....	6.8	Switzerland .....	7.7
Ireland (Republic) .....	5.4	Western Germany .....	9.2

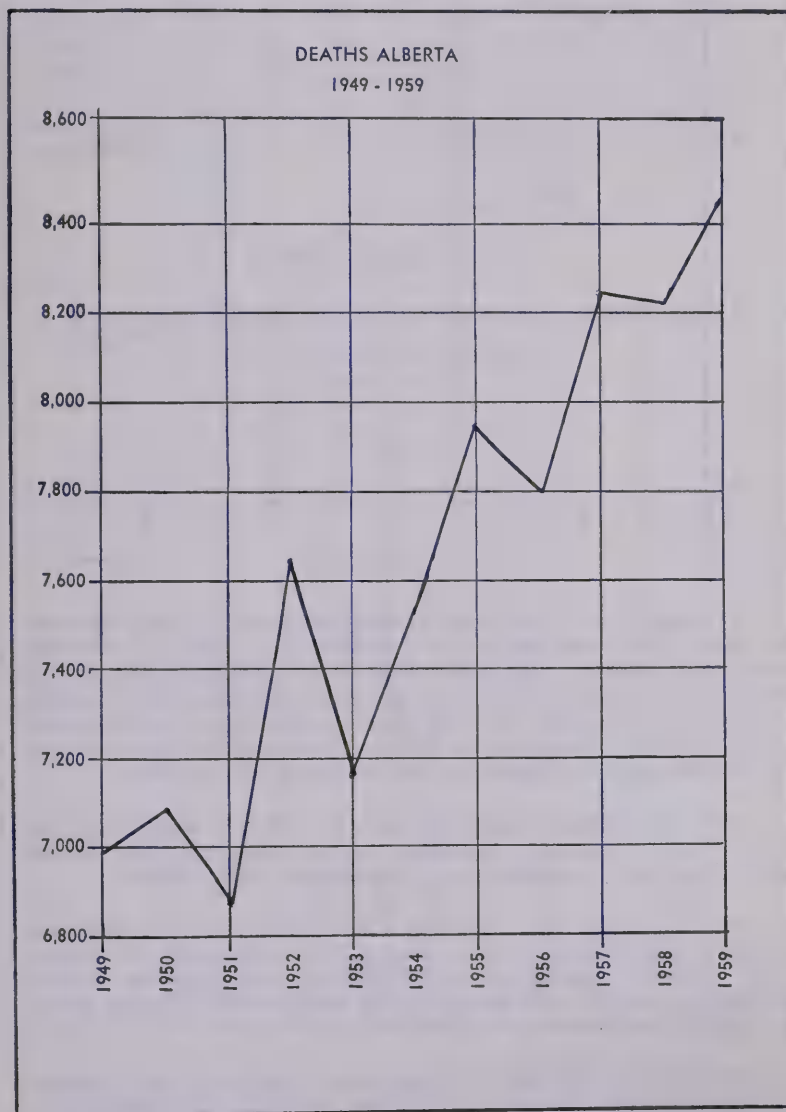


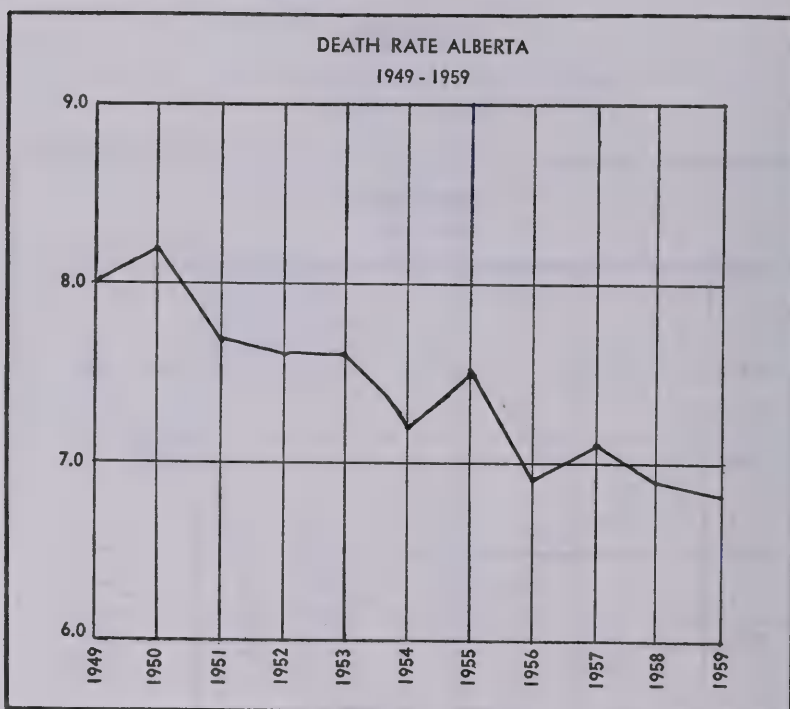
## DIVORCES



The divorce rate of 67.3 per 100,000 population for 1959 is a considerable increase over the previous years rate of 61.9 and was only exceeded in the period 1945 to 1948 after the second great war. There were 1,836 divorce decrees and 16 decrees of nullity granted during the year. Of the divorces 337 were granted to husbands and 499 to wives, and of the nullities 6 to husbands and 10 to wives.

## DEATHS





The deaths of 8,481 residents were registered during the year of which 5,382 were males and 3,099 females. The ratio between males and females was 1,736 males to 1000 females. The deaths of 217 Indians are included in the total. Although the number of deaths increased by 244 over the previous year, the death rate of 6.8 per 1000 population for 1959 is the lowest for the provinces of Canada and the lowest in the history of the province.

The five major causes of death in order of standing were heart disease; cancer; vascular lesions affecting the central nervous system; accidents, and pneumonia (all forms).

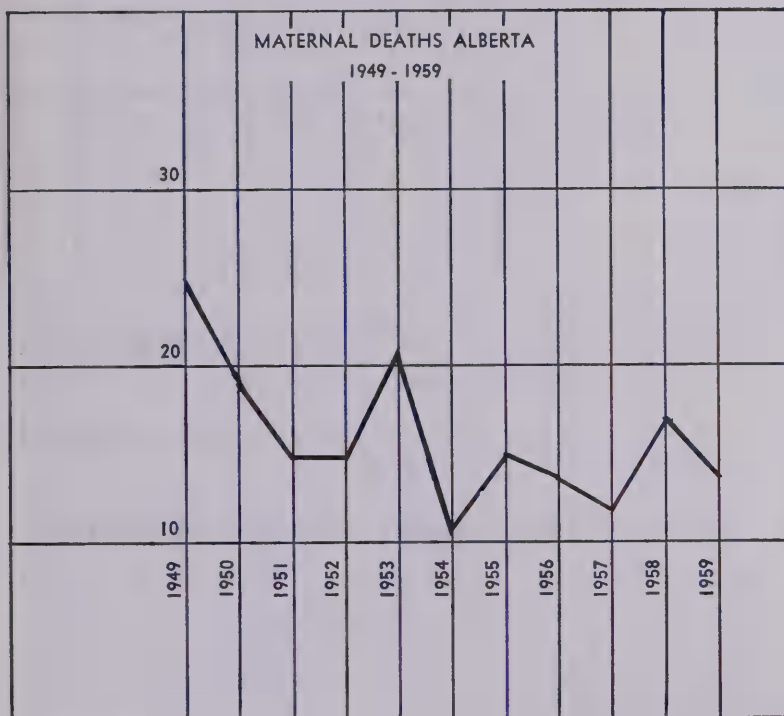
Heart disease accounted for 2,581 deaths and the rate was 2.04 per 100,000 population; cancer 1,357 deaths, and the rate of 1.09; vascular lesions affecting the central nervous system accounted for 952 with a rate of 76; accidents 659 deaths and a rate of 53, and pneumonia 346 deaths and a rate of 27.

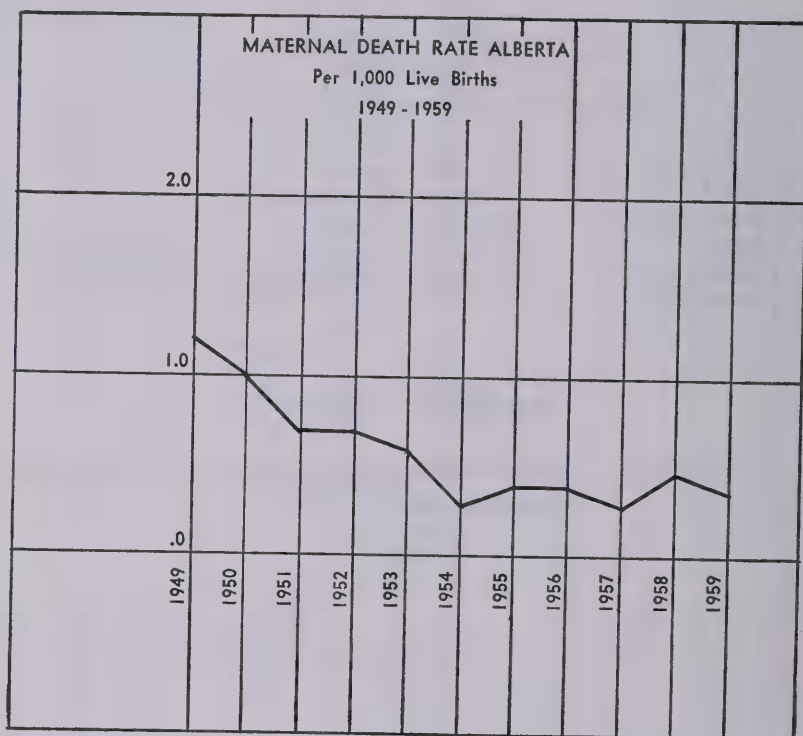
The number of deaths registered in the cities of the province were as follows: Calgary, 1,809; Camrose, 221; Drumheller, 81; Edmonton, 2,297; Grande Prairie, 45; Jasper Place, 14; Lethbridge, 302; Medicine Hat, 235; Red Deer, 122, and Wetaskiwin, 66.

The following table shows the death rates for Canada, the provinces, and certain other countries:

Canada .....	8.0	United States .....	9.4
Newfoundland .....	7.1	Australia .....	8.9
Prince Edward Island .....	9.9	New Zealand .....	9.1
Nova Scotia .....	8.9	Denmark .....	9.4
New Brunswick .....	8.0	Finland .....	8.8
Quebec .....	7.3	France .....	11.2
Ontario .....	8.5	Italy .....	9.3
Manitoba .....	8.4	Austria .....	12.4
Saskatchewan .....	7.8	Norway .....	8.9
Alberta .....	6.8	Netherlands .....	7.1
British Columbia .....	9.1	Portugal .....	10.8
England and Wales .....	11.6	Spain .....	9.0
Scotland .....	12.1	Sweden .....	9.5
Northern Ireland .....	10.9	Switzerland .....	9.5
Ireland (Republic) .....	12.0	Western Germany .....	10.8

## MATERNAL DEATHS





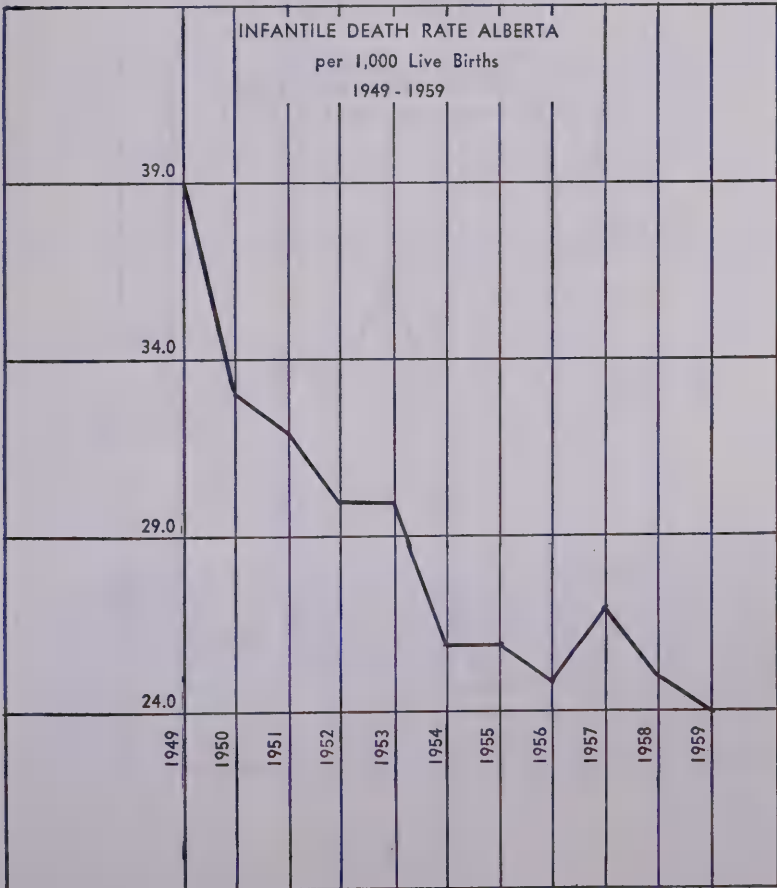
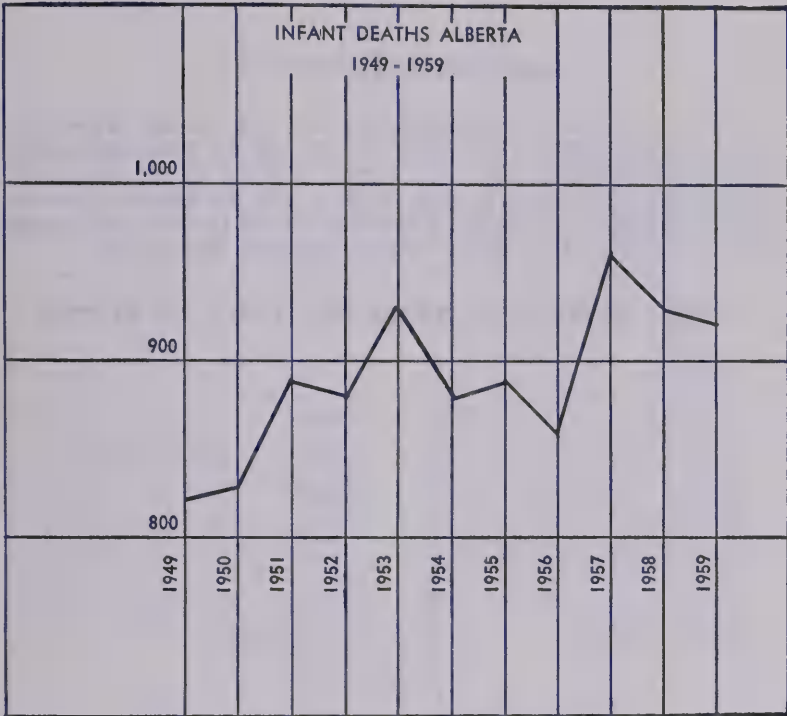
It will be noted there is a gratifying decrease in the number of maternal deaths. Fourteen deaths were registered during 1959 as compared to 17 for the previous year.

The rate of 0.4 per 1000 live births is the lowest in Canada and is matched by four other provinces.

#### MATERNAL DEATH RATES PER 1,000 LIVE BIRTHS

Canada .....	0.5	Ontario .....	0.5
Newfoundland .....	0.8	Manitoba .....	0.6
Prince Edward Island .....	.....	Saskatchewan .....	0.4
Nova Scotia .....	0.4	Alberta .....	0.4
New Brunswick .....	0.4	British Columbia .....	0.4
Quebec .....	0.7		

# INFANT DEATHS



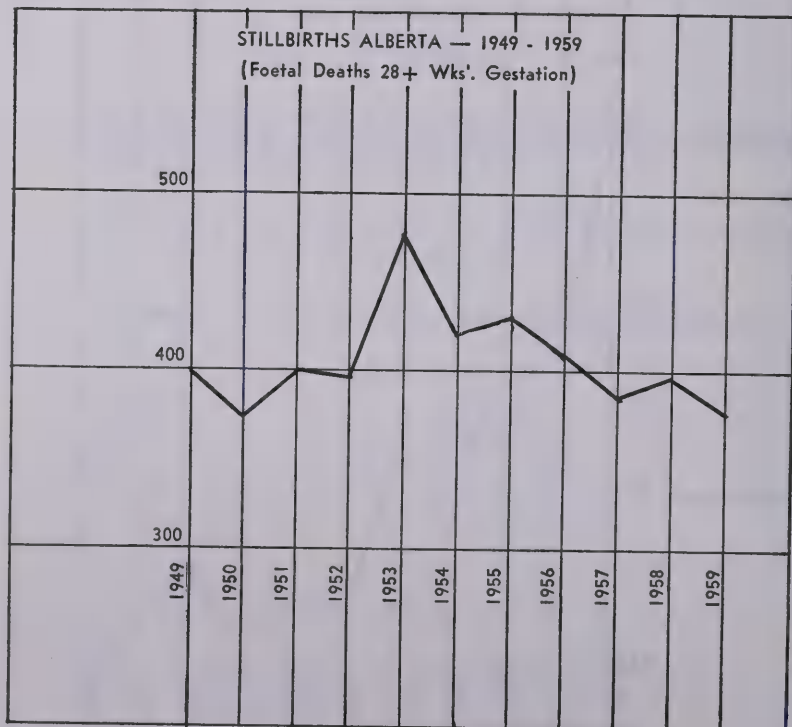


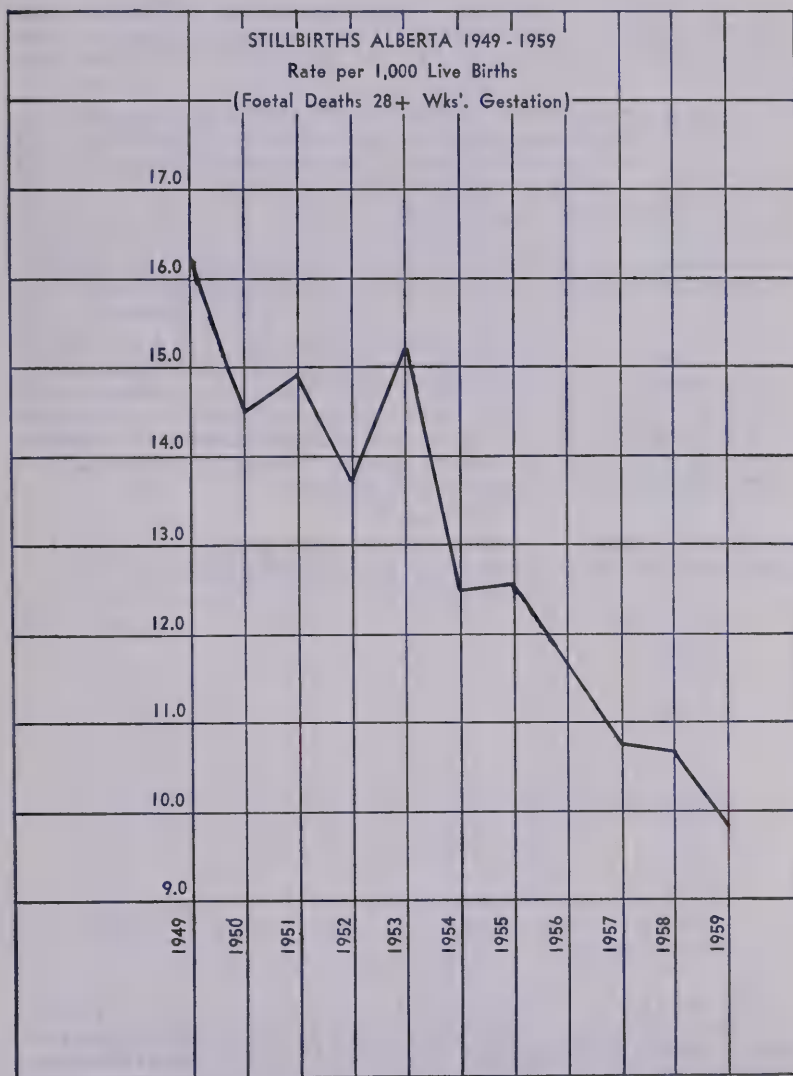
The deaths of 922 infants under one year of age were registered during 1959, 10 less than in 1958. Of the total deaths 554 were male and 658 female. The ratio of male to female infant deaths was 1,506 males to 1000 females. For the second consecutive year Alberta shares with the Province of Ontario the lowest rate in Canada of 24 infant deaths per 1000 live births.

### INFANT MORTALITY RATES PER 1000 LIVE BIRTHS

Canada .....	28	United States .....	26
Newfoundland .....	39	Australia .....	21
Prince Edward Island .....	31	New Zealand .....	20
Nova Scotia .....	31	Denmark .....	23
New Brunswick .....	33	Finland .....	24
Quebec .....	33	France .....	30
Ontario .....	24	Italy .....	45
Manitoba .....	27	Austria .....	40
Saskatchewan .....	26	Norway .....	20
Alberta .....	24	Netherlands .....	17
British Columbia .....	25	Portugal .....	88
England and Wales .....	22	Spain .....	41
Scotland .....	28	Sweden .....	16
Northern Ireland .....	28	Switzerland .....	22
Ireland (Republic) .....	32	Western Germany .....	34

### STILLBIRTHS





There was a marked decrease in the number of stillbirths (foetal deaths - 28 + weeks gestation) registered. The number registered was 379, a drop of 19 under the previous year. The stillbirth rate has fluctuated on a downward trend for the past half century and the 1959 rate of 9.9 per 1000 live births is the lowest for Canada, and also the lowest in the history of the province.

## ADMINISTRATION

The Vital Statistics Act, The Solemnization of Marriage Act, and the Regulations providing for the licensing of embalmers are administered by the Director of the Division of Vital Statistics.

Under the provisions of The Vital Statistics Act the administrative procedure necessary for matters of civil registration is provided. There are approximately 165 District Registrars located in the larger centres of the province whose duties are to acquire the registration of each vital event (birth, stillbirth, marriage and death) which occurs within their districts for recording and transmission to this Division on a weekly basis. In addition decrees of dissolution and annulments of marriages; adoptions, and legal changes of names are received for recording. All registrations are edited, etc., arranged and bound in a systematic manner and continuous indexes prepared. Certified copies; photocopies of original registrations; certified extracts; certificates and verifications are issued to applicants or agencies upon receipt of the prescribed fee. Verifications and photocopies of registrations are also supplied free of charge to other government departments and certain authorized agencies.

Listed below is a summary of work processed under the provisions of The Vital Statistics Act during 1959:

Births processed .....	37,996
Stillbirths processed .....	379
Marriages processed .....	10,402
Deaths processed .....	8,498
Certificates of Birth .....	59,708
Certificates of Marriage .....	18,116
Certificates of Death .....	4,213
Searches .....	37,100
Legal changes of surname recorded .....	521
Changes of christian names recorded .....	1,006
Legitimations of birth .....	141
Delayed registrations of births and marriages .....	915
Corrections of record .....	1,185
Adoptions registered .....	988

In addition to the above the Division supplies free of charge to other government departments and agencies verifications of births, deaths and marriages. No accurate record of verifications supplied for the year 1959 was kept, however, we estimate 6,000 were made during the year.

Under The Solemnization of Marriage Act the Division provides administrative procedure for the appointment of Marriage License Issuers, Marriage Commissioners, and the registration of clergymen authorized to perform marriages in the province. Approximately 170 Marriage License Issuers are located in the larger centres of the province whose duties are to issue marriage licenses and certificates of publication of banns in accordance with the provisions of The Marriage Act.

The following summary shows work processed under the provisions of The Solemnization of Marriage Act during the year 1959:

Marriage Licenses .....	9,840
Certificates of Publication of Banns .....	185
Clergymen registered .....	2,295
Marriage Commissioners registered .....	15

Under the provisions of the Regulations providing for the licensing of Embalmers the Division licenses embalmers and registers apprentice embalmers. During the year 177 embalmers were licensed and 10 apprentice embalmers registered.

### STAFF

The staff complement of the Division during 1959 was 26 and during the year there were 10 appointments and 14 resignations.

### DIVISIONS OF ALBERTA FOR CENSUS AND VITAL STATISTICS PURPOSES

As the Province of Alberta is not divided into Counties, and the political divisions are not permanently fixed, it has been found advisable to use smaller areas, the Dominion Census Divisions.

Prior to 1956 the Province was divided into 17 census divisions. However in 1956 the census division boundaries were completely revised and there are now 15 census divisions. These divisions are further sub-divided into municipal areas. The municipal areas which were each originally within the boundaries of a single census division, have been reorganized by the Provincial authorities into larger units, and now, in many cases, part of the new municipality or improvement district is in one census division and part in another.

The following table shows the census divisions divided into municipalities, improvement districts, cities, towns and villages with the 1956 and 1951 division population figures.

## BUREAU OF VITAL STATISTICS

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES  
FOR CENSUS YEARS, 1951 AND 1956

Division and Subdivision	Total		Division and Subdivision	Total	
	1956	1951		1956	1951
<b>ALBERTA</b> .....	<b>1,123,116</b>	<b>939,501</b>	<b>Division No. 5—Continued:</b>		
<b>Division No. 1</b> .....	<b>34,496</b>	<b>28,317</b>	Cities:		
2. Forty Mile .....	4,224	3,924	Drumheller .....	2,632	2,601
11. I.D.—D.A. ....	4,076	4,025	Towns:		
22. I.D.—D.A. ....	592	563	Gleichen .....	581	430
Army Experimental Range .....	863	533	Strathmore .....	727	704
Cities:			Three Hills .....	1,095	1,026
Medicine Hat .....	20,826	16,364	Vulcan .....	1,204	1,040
Towns:			Villages:		
Bow Island .....	1,001	653	Acme .....	292	275
Irvine .....	232	224	Arrowwood .....	240	222
Redcliff .....	2,001	1,538	Carbon .....	354	374
Villages:			Carmangay .....	299	285
Burdett .....	225	118	Champion .....	402	378
Foremost .....	456	375	Cluny .....	197	202
<b>Division No. 2</b> .....	<b>74,991</b>	<b>67,694</b>	Craigsmyle .....	138	136
14. Taber .....	6,730	6,157	Della .....	282	278
25. Lethbridge .....	11,624	13,857	Hussar .....	168	120
Newell County No. 4 .....	5,943	7,023	Lomond .....	189	153
Warner County No. 5 .....	5,157	5,322	Milo .....	167	141
Cities:			Morin .....	267	226
Lethbridge .....	29,462	22,947	Munson .....	82	78
Towns:			Rockyford .....	226	246
Bassano .....	753	624	Rumsey .....	104	110
Brooks .....	2,320	1,648	Standard .....	230	237
Coaldale .....	2,327	806	Trochu .....	680	630
Milk River .....	642	481	<b>Division No. 6</b> .....	<b>237,886</b>	<b>177,441</b>
Raymond .....	2,399	2,279	31. Foothills .....	7,902	8,100
Taber .....	3,685	3,042	44. Rocky View .....	12,788	14,770
Villages:			46. I.D.—D.A. ....	4,650	1,390
Barons .....	352	369	49. Mountain View .....	9,273	9,497
Duchess .....	177	258	Indian Reserves .....	478	385
Grassy Lake .....	282	167	Cities:		
Nobleford .....	263	235	Calgary .....	181,780	129,060
Picture Butte .....	881	865	Towns:		
Rosemary .....	158	.....	Black Diamond .....	991	1,154
Stirling .....	430	520	Bowness .....	6,217	2,922
Tilley .....	240	259	Didsbury .....	1,227	1,180
Vauxhall .....	713	393	Forest Lawn .....	3,150	1,079
Warner .....	450	422	High River .....	2,102	1,888
<b>Division No. 3</b> .....	<b>30,426</b>	<b>27,667</b>	Okotoks .....	764	767
6. Cardston .....	5,398	6,293	Olds .....	1,980	1,617
9. Pincher Creek .....	3,109	3,215	Sundre .....	923	337
26. Willow Creek .....	6,344	5,166	Villages:		
Indian Reserves .....	3,524	2,555	Airdrie .....	327	267
Towns:			Beiseker .....	321	325
Cardston .....	2,607	2,487	Blackie .....	198	224
Claresholm .....	2,431	1,608	Carstairs .....	449	468
Fort Macleod .....	2,103	1,860	Cayley .....	1467	139
Granum .....	322	327	Cochrane .....	707	530
Magrath .....	1,382	1,320	Cremona .....	192	.....
Nanton .....	1,047	934	Crossfield .....	459	443
Pincher Creek .....	1,729	1,456	Irricana .....	158	180
Stavely .....	338	327	Turner Valley .....	704	719
Villages:			<b>Division No. 7</b> .....	<b>40,214</b>	<b>40,217</b>
Cowley .....	92	119	52. Provost .....	3,621	3,751
<b>Division No. 4</b> .....	<b>14,294</b>	<b>13,182</b>	53. Paintearth .....	3,515	3,462
34. Acadia .....	914	705	61. Wainwright .....	4,481	4,690
Special Area No. 2 .....	3,687	3,590	62. Flagstaff .....	6,806	7,194
Special Area No. 3 .....	5,036	4,811	Stettler County No. 6 .....	6,061	6,059
Towns:			Buffalo National Park .....	604	2,708
Hanna .....	2,327	2,027	Towns:		
Cereal .....	154	135	Castor .....	958	798
Chinook .....	154	116	Coronation .....	784	738
Consort .....	434	396	Daysland .....	499	475
Empress .....	480	411	Hardisty .....	628	536
Oyen .....	562	433	Provost .....	878	676
Veteran .....	241	206	Stettler .....	3,359	2,442
Youngstown .....	305	352	Wainwright .....	2,653	1,996
<b>Division No. 5</b> .....	<b>38,120</b>	<b>39,055</b>	Villages:		
40. Wheatland .....	5,582	5,779	Alliance .....	313	281
42. I.D.—D.A. ....	5,502	6,925	Amisk .....	151	.....
47. Starland .....	2,831	2,891	Big Valley .....	354	307
48. Kneehill .....	7,055	7,174	Botha .....	102	98
Vulcan County No. 2 .....	5,087	5,094	Chauvin .....	353	340
Indian Reserves .....	1,507	1,300	Czar .....	153	123
			Donalda .....	256	318
			Edgerton .....	292	309
			Forestburg .....	552	443
			Gadsby .....	145	128
			Galahad .....	215	198



POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES  
FOR CENSUS YEARS, 1951 AND 1956 (Continued)

Division and Subdivision	Total		Division and Subdivision	Total	
	1956	1951		1956	1951
<b>Division No. 7—Continued:</b>			<b>Division No. 10—Continued:</b>		
Villages—Continued:			Bawlf .....	287	236
Halkirk .....	209	148	Bittern Lake .....	45	25
Hughenden .....	212	218	Bruderheim .....	290	387
Irma .....	421	369	Chipman .....	192	180
Killam .....	524	465	Derwent .....	289	233
Lougheed .....	201	186	Edberg .....	167	188
Sedgewick .....	608	485	Ferintosh .....	195	205
Strome .....	306	276	Hairy Hill .....	183	205
			Hay Lakes .....	193	231
<b>Division No. 8</b>	<b>64,168</b>	<b>57,513</b>	Holden .....	544	504
55. Red Deer .....	12,830	12,243	Innisfree .....	318	287
64. Lacombe .....	8,351	8,612	Kitscoty .....	283	235
65. I.D.—D.A. ....	5,199	6,066	Lamont .....	632	637
68. I.D.—D.A. ....	81	194	Lavooy .....	127	122
Ponoka County No. 3 .....	8,611	9,139	Manville .....	589	528
Indian Reserves .....	1,230	1,129	Marwayne .....	337	.....
Cities:			Minburn .....	150	185
Red Deer .....	12,338	7,575	Myrnam .....	440	389
Towns:			New Norway .....	273	258
Innisfall .....	1,883	1,417	Ryley .....	495	406
Lacombe .....	2,747	2,277	Willington .....	431	281
Ponoka .....	3,387	2,574			
Rimbeey .....	980	757	<b>Division No. 11</b>	<b>323,539</b>	<b>235,475</b>
Rocky Mountain House .....	1,285	1,147	74. Wetaskiwin .....	9,466	8,222
Sylvan Lake .....	1,114	985	75. Leduc .....	11,497	12,526
Villages:			77. I.D.—D.A. ....	3,259	1,310
Alix .....	517	461	83. Strathcona .....	8,873	7,591
Bentley .....	536	439	84. Stony Plain .....	8,491	8,962
Blackfalds .....	340	154	90. Sturgeon River .....	13,865	11,174
Bowden .....	296	277	Indian Reserves .....	1,786	1,208
Caroline .....	296	.....	Cities:		
Clive .....	249	241	Edmonton .....	226,002	159,631
Delburne .....	429	395	Wetaskiwin .....	4,476	3,824
Eckville .....	456	379	Towns:		
Elnora .....	177	211	Beverly .....	4,602	2,159
Gull Lake .....	32	32	Calmar .....	730	944
Mirror .....	591	635	Devon .....	1,429	842
Penhold .....	213	174	Drayton Valley .....	2,588	.....
			Fort Saskatchewan .....	2,582	1,076
<b>Division No. 9</b>	<b>17,239</b>	<b>19,496</b>	Jasper Place .....	15,957	9,139
8. I.D.—D.A. ....	110	167	Leduc .....	2,068	1,842
10. I.D.—D.A. ....	3,269	4,706	Morinville .....	957	892
27. I.D.—D.A. ....	100	125	St. Albert .....	1,320	1,129
33. I.D.—D.A. ....	47	81	Stony Plain .....	1,098	878
50. I.D.—D.A. ....	75	71	Villages:		
58. I.D.—D.A. ....	429	443	Entwistle .....	354	.....
69. I.D.—D.A. ....	152	1,223	Itaska Beach .....	2	.....
946. I.D.—D.A. ....	2,456	2,630	Lakeview .....	41	15
Banff National Park .....	3,069	2,856	Legal .....	457	523
Banff (not incorp.) .....	2,518	2,357	Ma-Me-O Beach .....	137	98
Jasper National Park .....	2,322	1,899	Millet .....	427	402
Jasper (not incorp.) .....	2,105	1,728	Seba Beach .....	141	103
Waterton Lakes .....			Silver Beach .....	17	.....
National Park .....	277	238	Spruce Grove .....	309	.....
Indian Reserves .....	1,173	974	Thorsby .....	411	385
Towns:			Warburg .....	257	.....
Blairmore .....	1,973	1,933			
Coleman .....	1,566	1,961	<b>Division No. 12</b>	<b>44,947</b>	<b>39,886</b>
Villages:			85. I.D.—D.A. ....	348	208
Frank .....	221	239	86. St. Paul .....	7,979	9,041
			87. Bonnyville .....	10,058	6,744
<b>Division No. 10</b>	<b>71,500</b>	<b>70,677</b>	89. Smoky Lake .....	5,517	6,292
63. Camrose .....	9,626	10,457	101. I.D.—D.A. ....	2,039	2,235
71. Vermilion River .....	9,557	9,663	102. I.D.—D.A. ....	5,066	5,115
72. Minburn .....	6,742	7,312	121. I.D.—D.A. ....	197	274
73. Beaver .....	6,883	7,202	143. I.D.—D.A. ....	879	835
81. Eagle .....	7,114	7,722	Wood Buffalo National		
82. Lamont .....	7,700	8,778	Park (pt.) .....	143	36
Elk Island National Park .....	56	55	Indian Reserves .....	3,530	3,168
Cities:			Towns:		
Camrose .....	5,817	4,131	Bonnyville .....	1,495	1,139
Towns:			Cold Lake .....	1,097	.....
Lloydminster (pt.) .....	2,506	1,706	Lac La Biche .....	967	905
Mundare .....	650	596	McMurray .....	1,110	926
Tofield .....	800	692	St. Paul .....	2,229	1,407
Two Hills .....	713	525	Villages:		
Vegreville .....	2,574	2,223	Elk Point .....	594	453
Vermilion .....	2,196	1,982	Glendon .....	314	.....
Viking .....	897	683	Smoky Lake .....	563	491
Villages:			Vilna .....	374	378
Andrew .....	602	625	Warspite .....	159	.....
Bashaw .....	597	603	Waskatenau .....	289	239



POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES  
FOR CENSUS YEARS, 1951 AND 1956 (Continued)

Division and Subdivision	Total		Division and Subdivision	Total	
	1956	1951		1956	1951
<b>Division No. 13</b> .....	<b>45,033</b>	<b>46,638</b>	<b>Division No. 15—Continued:</b>		
92. Westlock .....	8,731	8,795	128. I.D.—D.A. ....	947	593
93. Lac Ste. Anne .....	6,892	7,282	129. I.D.—D.A. ....	877	502
103. Athabasca .....	7,367	8,200	130. Smoky River .....	3,955	4,374
106. Barrhead .....	5,944	6,501	131. I.D.—D.A. ....	2,413	2,058
107. I.D.—D.A. ....	1,502	1,699	132. I.D.—D.A. ....	3,133	2,927
108. I.D.—D.A. ....	781	770	133. Spirit River .....	1,413	1,406
122. I.D.—D.A. ....	557	550	134. I.D.—D.A. ....	2,633	2,618
Thorhild County No. 7 ....	5,596	6,174	135. Peace .....	1,732	1,741
Indian Reserves .....	332	279	136. Fairview .....	1,885	2,031
Towns:			137. I.D.—D.A. ....	127	124
Athabasca .....	1,293	1,068	138. I.D.—D.A. ....	3,489	4,210
Barrhead .....	1,610	1,243	139. I.D.—D.A. ....	2,635	3,007
Redwater .....	1,065	1,306	144. I.D.—D.A. ....	26	115
Westlock .....	1,136	1,111	145. I.D.—D.A. ....	136	158
Villages:			146. I.D.—D.A. ....	634	754
Alberta Beach .....	127	79	147. I.D.—D.A. ....	2,500	1,589
Boyle .....	304	.....	149. I.D.—D.A. ....	122	39
Clyde .....	221	219	Grande Prairie County		
Mayerthorpe .....	563	472	No. 1 .....	8,899	10,126
Onoway .....	190	189	Indian Reserves .....	3,032	3,254
Radway .....	203	184	Towns:		
Sangudo .....	331	269	Beaverlodge .....	768	514
Thorhild .....	288	248	Fairview .....	1,260	929
<b>Division No. 14</b> .....	<b>15,846</b>	<b>14,443</b>	Falher .....	802	575
78. I.D.—D.A. ....	3,444	3,724	Grande Prairie .....	6,302	2,664
79. I.D.—D.A. ....	2,234	3,992	Grimshaw .....	904	564
95. I.D.—D.A. ....	4,696	2,561	High Prairie .....	1,743	1,141
96. I.D.—D.A. ....	314	299	McLennan .....	1,092	1,074
109. I.D.—D.A. ....	1,693	1,506	Peace River .....	2,034	1,672
Towns:			Spirit River .....	743	553
Edson .....	2,560	1,956	Villages:		
Villages:			Berwyn .....	342	288
Evansburg .....	358	.....	Donnelly .....	265	.....
Wildwood .....	547	405	Girouxville .....	300	.....
<b>Division No. 15</b> .....	<b>70,417</b>	<b>61,800</b>	Hines Creek .....	360	.....
110. I.D.—D.A. ....	346	73	Hythe .....	481	342
111. I.D.—D.A. ....	241	324	Kinuso .....	306	238
123. I.D.—D.A. ....	2	1	Manning .....	726	.....
124. I.D.—D.A. ....	3,216	2,853	Rycroft .....	424	372
125. I.D.—D.A. ....	3,155	3,277	Sexsmith .....	345	331
126. I.D.—D.A. ....	2,427	2,138	Valleyview .....	973	.....
			Wembley .....	272	251

TABLE 1—GENERAL SUMMARY OF VITAL STATISTICS FOR CENSUS DIVISIONS, ALBERTA, 1959

CENSUS DIVISIONS	LIVE BIRTHS			Live Births in Hospitals	Illegitimate Births	Stillbirths	Marriages	Excess Births Over Deaths	Total Deaths	Hospital Deaths	Infant Deaths	Neo-natal Deaths	Maternal Deaths
	Total	Male	Female										
<b>ALBERTA</b>	<b>38080</b>	<b>19562</b>	<b>18518</b>	<b>37305</b>	<b>2128</b>	<b>376</b>	<b>10402</b>	<b>29599</b>	<b>8481</b>	<b>6004</b>	<b>922</b>	<b>624</b>	<b>14</b>
Division No. 1	988	532	456	977	35	8	304	703	285	207	30	23	.....
Division No. 2	2183	1113	1070	2136	56	17	675	1691	492	355	43	30	.....
Division No. 3	917	467	450	878	80	7	270	688	229	180	32	24	.....
Division No. 4	412	222	190	402	10	3	71	291	121	81	9	8	1
Division No. 5	953	498	455	931	43	10	203	631	322	218	19	12	.....
Division No. 6	9144	4705	4439	9106	517	80	2525	7160	1984	1337	223	168	2
Division No. 7	1113	564	549	1104	34	15	301	812	287	215	27	20	1
Division No. 8	2097	1062	1035	2081	132	32	532	1601	496	356	42	20	1
Division No. 9	433	242	191	416	51	2	155	299	134	108	13	11	1
Division No. 10	1580	817	763	1570	55	11	540	999	581	394	31	17	.....
Division No. 11	12483	6417	6066	12447	662	124	3729	10184	2299	1725	243	178	2
Division No. 12	1647	820	827	1409	153	24	272	1296	351	224	82	41	1
Division No. 13	1077	535	542	1065	40	12	244	729	348	241	30	21	.....
Division No. 14	580	300	280	563	41	7	92	463	117	68	22	16	.....
Division No. 15	2473	1268	1205	2220	219	24	489	2038	455	295	76	35	5

TABLE 2—GENERAL SUMMARY OF VITAL STATISTICS FOR INCORPORATED URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1959

CITY, TOWN OR VILLAGE	LIVE BIRTHS			Live Births in Hospitals	Illegitimate Births	Stillbirths	Marriages	Excess Births Over Deaths	Total Deaths	Hospital Deaths	Infant Deaths	Neo-natal Deaths	Maternal Deaths
	Total	Male	Female										
Athabasca	56	35	21	56	7	.....	32	28	28	15	4	2	.....
Barrhead	58	24	34	58	1	.....	41	33	25	18	3	2	.....
Beverly	462	252	210	460	14	6	14	423	39	29	10	7	.....
Blairmore	35	20	15	35	1	.....	11	9	26	22	1	1	.....
Bonnyville	65	30	35	62	3	1	29	47	18	13	4	2	.....
Bow Island	23	12	11	23	.....	1	10	11	12	10	.....	.....	.....
Bowness	346	180	166	342	13	5	41	308	38	23	8	4	.....
Brooks	82	41	41	82	5	.....	42	58	24	19	3	2	.....
Calgary	7259	3729	3530	7254	450	67	2230	5663	1596	1090	176	135	2
Camrose	170	91	79	170	7	1	86	57	113	56	1	.....	.....
Cardston	78	43	35	78	2	.....	123	48	30	27	5	3	.....
Claresholm	51	30	21	51	2	.....	19	25	26	23	2	2	.....
Coldlake	69	33	36	69	1	.....	45	53	16	13	2	1	.....
Cold Lake	64	30	34	62	2	2	20	52	12	9	2	2	.....
Coleman	32	25	7	32	.....	.....	11	16	16	11	.....	.....	.....
Devon	33	17	16	33	4	.....	5	32	1	1	.....	.....	.....
Didsbury	34	16	18	34	2	.....	17	16	18	16	1	1	.....
Drayton Valley	205	102	103	204	5	.....	26	186	19	16	5	2	.....
Drumheller	124	70	54	124	7	1	61	87	37	25	4	.....	.....
Edmonton	8604	4380	4224	8597	523	84	3229	6874	1730	1351	172	134	2
Edson	155	83	72	155	8	2	57	129	26	19	3	2	.....
Fairview	44	27	17	44	1	1	32	32	12	9	.....	.....	.....
Forest Lawn	270	129	141	269	7	.....	28	243	27	19	7	5	.....
Fort Macleod	80	42	38	80	2	1	32	53	27	22	1	1	.....
Fort Saskatchewan	105	53	52	105	4	.....	23	93	12	9	4	3	.....
Grande Prairie	304	155	149	304	8	4	117	259	45	37	10	9	.....
Hanna	87	35	52	87	4	1	31	62	25	18	7	6	.....
High Prairie	83	41	42	82	10	1	32	63	20	15	5	3	.....
High River	46	26	20	46	2	.....	36	22	24	18	2	1	.....
Innisfail	67	31	36	67	7	1	39	42	25	21	3	1	.....
Jasper Place	1099	578	521	1099	40	9	23	1021	78	55	13	7	.....
Lacombe	95	46	49	95	3	1	40	63	32	24	1	1	.....
Leduc	63	28	35	63	1	.....	51	50	13	8	.....	.....	.....
Lethbridge	913	465	448	911	31	9	385	652	261	194	17	14	.....
Lloydminster	108	54	54	107	4	.....	69	90	18	9	1	1	.....
Magrath	36	17	19	34	1	.....	6	24	12	9	2	2	.....
McLennan	47	26	21	47	4	1	10	42	5	4	.....	.....	.....
McMurray	30	18	12	30	7	1	6	17	13	11	5	3	.....
Medicine Hat	602	330	272	602	29	4	274	395	207	156	15	12	.....
Nanton	29	15	14	28	.....	.....	16	14	15	12	3	3	.....
Olds	79	48	31	79	2	.....	37	52	27	17	3	3	.....
Peace River	124	64	60	122	8	1	35	102	22	17	7	3	.....
Pincher Creek	89	44	45	89	1	1	29	60	29	23	9	5	.....
Ponoka	129	57	72	129	7	1	53	91	38	30	1	1	.....
Raymond	44	23	21	44	.....	.....	23	26	18	11	3	3	.....
Redcliff	55	22	33	55	4	1	8	39	16	12	1	1	.....
Red Deer	634	326	308	634	25	10	212	518	116	83	11	5	1
Redwater	46	20	26	46	.....	.....	3	41	5	2	.....	.....	.....
Rocky Mountain House	97	53	44	96	8	4	32	78	19	12	5	5	.....
St. Albert	73	50	23	73	6	2	11	42	31	8	.....	.....	.....
St. Paul	108	47	61	108	3	1	30	86	22	20	2	1	.....
Stettler	123	71	52	122	9	1	66	89	34	24	1	1	.....
Stony Plain	38	22	16	38	1	1	27	26	12	9	2	2	.....
Sylvan Lake	29	9	20	29	1	.....	10	11	18	11	1	1	.....
Taber	99	48	51	99	2	.....	59	73	26	21	3	2	.....
Three Hills	53	29	24	53	2	1	13	46	7	5	.....	.....	.....
Vegreville	65	29	36	65	4	.....	58	30	35	29	2	2	.....
Vermilion	78	43	35	78	3	.....	52	55	23	20	1	1	.....
Vulcan	38	17	21	38	1	1	15	22	16	13	1	1	.....
Wainwright	144	73	71	144	5	2	41	107	37	27	7	7	.....
Westlock	58	25	33	58	3	1	49	33	25	19	.....	.....	.....
Wetaskiwin	148	67	81	144	5	2	59	99	49	36	2	1	.....

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TABLE 3—DEATHS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, 1959

PLACE OF OCCURRENCE	Total (Occurrence)	PLACE OF RESIDENCE													
		Nfld.	P.E.I.	N.S.	N.B.	Quebec	Ontario	Manitoba	Sask.	Alberta	B.C.	Yukon	N.W.T.	U.S.A.	Other
Total (residence) .....	140641	3179	1007	6371	4747	36390	50600	7421	7003	8481	14336	89	289	644	84
Newfoundland .....	3184	3161	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	12	8
Prince Edward Island .....	1001	.....	991	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nova Scotia .....	6362	6	10	6290	18	6	8	.....	.....	.....	1	.....	.....	19	4
New Brunswick .....	4797	.....	2	24	4647	27	9	.....	1	.....	2	.....	.....	83	2
Quebec .....	36265	3	1	7	27	35949	138	6	4	4	3	.....	2	88	33
Ontario .....	50764	6	3	19	19	280	50042	22	14	11	16	.....	3	307	22
Manitoba .....	7499	.....	.....	.....	.....	1	64	7307	58	11	14	.....	13	29	2
Saskatchewan .....	6969	.....	.....	.....	.....	1	13	29	6845	52	12	.....	.....	16	.....
Alberta .....	8498	.....	.....	.....	.....	1	11	12	48	8319	58	4	18	25	2
British Columbia .....	14308	.....	.....	1	2	5	17	11	13	44	14143	6	1	54	11
Yukon .....	82	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	77	.....	4	.....
N.W.T. ....	259	.....	.....	2	.....	2	.....	.....	1	3	.....	.....	251	.....	.....
U.S.A. ....	653	3	.....	26	31	116	298	34	19	37	86	2	1	.....	.....

TABLE 4—DEATHS AND HOSPITAL DEATHS BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1959

CENSUS DIVISIONS	TOTAL DEATHS				DEATHS IN HOSPITAL			
	Total by Occurrence	Total by Residence	By Occurrence: Residence Elsewhere	By Residence: Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence: Residence Elsewhere	By Residence: Occurrence Elsewhere
<b>ALBERTA .....</b>	<b>8498</b>	<b>8481</b>	<b>179</b>	<b>162</b>	<b>6030</b>	<b>6004</b>	<b>121</b>	<b>95</b>
Division No. 1 .....	274	285	15	26	196	207	10	21
Division No. 2 .....	485	492	53	60	352	355	45	48
Division No. 3 .....	188	229	23	64	137	180	13	56
Division No. 4 .....	105	121	19	35	67	81	15	29
Division No. 5 .....	236	322	18	104	141	218	11	88
Division No. 6 .....	2083	1984	248	149	1435	1337	203	105
Division No. 7 .....	235	287	18	70	168	215	12	59
Division No. 8 .....	518	496	110	88	382	356	95	69
Division No. 9 .....	120	134	25	39	85	108	10	33
Division No. 10 .....	555	581	102	128	360	394	81	115
Division No. 11 .....	2684	2299	521	136	2105	1725	466	86
Division No. 12 .....	300	351	24	75	177	224	17	64
Division No. 13 .....	261	348	30	117	161	241	21	101
Division No. 14 .....	68	117	10	59	21	68	1	48
Division No. 15 .....	386	435	25	74	243	295	11	63

TABLE 5—DEATHS AND HOSPITAL DEATHS BY OCCURRENCE AND RESIDENCE IN URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1959

CITY, TOWN OR VILLAGE	TOTAL DEATHS				DEATHS IN HOSPITAL			
	Total by Occurrence	Total by Residence	By Occurrence: Residence Elsewhere	By Residence: Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence: Residence Elsewhere	By Residence: Occurrence Elsewhere
Athabasca .....	51	28	27	4	32	15	20	3
Barrhead .....	44	25	24	5	39	18	24	3
Beverly .....	5	39	...	34	...	29	...	29
Blairmore .....	7	26	4	23	4	22	3	21
Bonnyville .....	28	18	13	3	21	13	11	3
Bow Island .....	10	12	2	4	8	10	2	4
Bowness .....	9	38	1	30	...	23	...	23
Brooks .....	34	24	14	4	28	19	12	3
Calgary .....	1809	1596	357	144	1307	1090	305	88
Camrose .....	221	113	113	5	155	56	103	4
Cardston .....	28	30	9	11	25	27	8	10
Clareholm .....	45	26	26	7	43	23	26	6
Coaldale .....	14	16	2	4	11	13	1	3
Cold Lake .....	23	12	14	3	19	9	13	3
Coleman .....	4	16	...	12	1	11	...	10
Devon .....	1	1	...	1	1	1	...	...
Didsbury .....	34	18	21	5	33	16	21	4
Drayton Valley .....	11	19	2	10	9	16	1	8
Drumheller .....	81	37	50	6	68	25	48	5
Edmonton .....	2297	1730	728	161	1949	1353	690	94
Edson .....	24	26	14	16	20	19	12	11
Fairview .....	18	12	12	6	16	9	12	5
Forest Lawn .....	13	27	6	20	...	19	...	19
Fort Macleod .....	32	27	10	5	24	22	7	5
Fort Saskatchewan .....	6	12	4	10	...	9	...	9
Grande Prairie .....	79	45	41	7	74	37	40	3
Hanna .....	49	25	30	6	42	18	27	3
High Prairie .....	42	20	30	8	38	15	28	5
High River .....	38	24	22	8	30	18	19	7
Innisfail .....	39	25	20	6	37	21	20	4
Jasper Place .....	14	78	1	65	...	55	...	55
Lacombe .....	54	32	32	10	43	24	28	9
Leduc .....	7	13	4	10	...	8	...	8
Lethbridge .....	302	261	71	30	239	194	65	20
Lloydminster .....	8	18	1	11	...	9	...	9
Magrath .....	15	12	7	4	11	9	6	4
McLennan .....	17	5	15	3	15	4	13	2
McMurray .....	12	13	2	3	9	11	1	3
Medicine Hat .....	235	207	44	16	188	156	39	7
Nanton .....	2	15	...	13	1	12	...	11
Olds .....	36	27	17	8	28	17	17	6
Peace River .....	31	22	17	8	27	17	16	6
Pincher Creek .....	36	29	11	4	30	23	10	3
Ponoka .....	128	38	96	6	119	30	94	5
Raymond .....	23	18	7	2	17	11	7	1
Redcliff .....	4	16	...	12	...	12	...	12
Red Deer .....	122	116	30	24	95	83	27	15
Redwater .....	4	5	1	2	...	2	...	2
Rocky Mountain House .....	34	19	18	3	24	12	14	2
St. Albert .....	45	31	23	9	2	8	2	8
St. Paul .....	45	22	28	5	40	20	25	5
Stettler .....	51	34	24	7	42	24	24	6
Stony Plain .....	6	12	3	9	...	9	...	9
Sylvan Lake .....	4	18	...	14	...	11	...	11
Taber .....	39	26	18	5	35	21	18	4
Three Hills .....	19	7	14	2	16	5	12	1
Vegreville .....	53	35	22	4	48	29	22	3
Vermilion .....	28	23	11	6	24	20	10	6
Vulcan .....	26	16	18	8	23	13	17	7
Wainwright .....	40	37	16	13	32	27	14	9
Westlock .....	59	25	41	7	55	19	41	5
Wetaskiwin .....	66	49	33	16	50	36	26	12

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TABLE 6—CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS  
(INCLUDING CITIES, TOWNS AND VILLAGES) IN ALBERTA, 1959

CAUSE OF DEATH (Intermediate List)	SEX	Total	Division No. 1	Division No. 2	Division No. 3	Division No. 4	Division No. 5	Division No. 6	Division No. 7	Division No. 8	Division No. 9	Division No. 10	Division No. 11	Division No. 12	Division No. 13	Division No. 14	Division No. 15
<b>ALL CAUSES</b>	Total	8481	285	492	229	121	322	1984	287	496	134	581	2299	351	348	117	435
	Male	5382	177	303	153	92	221	1190	193	311	86	373	1428	230	239	73	313
	Female	3099	108	189	76	29	101	794	94	185	48	208	871	121	109	44	122
<b>I. INFECTIVE AND PARASITIC DISEASES</b>	Total	117	3	8	2	1	5	18	7	4	4	7	25	12	2	2	17
	Male	78	2	8	1	1	3	10	5	2	2	4	16	9	2	1	13
	Female	39	1	1	1	1	2	8	2	2	2	3	9	3	1	1	4
A 1 Tuberculosis of respiratory system	Male	27	1	2	.....	.....	2	4	1	.....	.....	3	7	3	1	1	2
	Female	10	.....	.....	.....	.....	.....	3	.....	.....	1	.....	4	1	.....	.....	.....
A 2 Tuberculosis of meninges and central nervous system	Male	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 4 Tuberculosis of bones and joints	Male	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
A 5 Tuberculosis, all other forms	Male	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	2
	Female	2	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 8 Tabes dorsalis	Male	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 9 General paralysis of insane	Male	4	1	.....	.....	.....	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 10 All other syphilis	Male	9	.....	2	.....	.....	.....	.....	2	1	.....	.....	2	2	.....	.....	.....
	Female	5	.....	.....	.....	.....	1	2	.....	.....	.....	1	.....	1	.....	.....	.....
A 13 Paratyphoid fever and other Salmonella infections	Male	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 16 Dysentery, all forms	Male	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
	Female	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
A 17 Scarlet fever	Male	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
A 18 Streptococcal sore throat	Male	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	3	.....	.....	.....	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....
A 20 Septicaemia and pyaemia	Male	2	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
	Female	3	.....	.....	1	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....
A 22 Whooping cough	Male	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
	Female	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
A 23 Meningococcal infections	Male	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
A 28 Acute poliomyelitis	Male	6	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	4
	Female	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3
A 29 Acute infectious encephalitis	Male	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis	Male	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 32 Measles	Male	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	1
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 34 Infectious hepatitis	Male	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	3	.....	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....	.....	.....	1
A 39 Hydatid disease	Male	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 43 All other diseases classified as infective and parasitic	Male	8	.....	1	1	.....	1	3	.....	.....	1	.....	.....	.....	.....	.....	1
	Female	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
<b>II. NEOPLASMS</b>	Total	1390	43	90	34	15	44	325	46	81	28	108	393	47	56	17	63
	Male	849	22	53	22	11	30	175	34	43	22	67	232	32	47	11	48
	Female	541	21	37	12	4	14	150	12	38	6	41	161	15	9	6	15
A 44 Malignant neoplasm of buccal cavity and pharynx	Male	15	1	1	.....	.....	.....	.....	.....	.....	.....	.....	9	1	.....	.....	.....
	Female	8	.....	.....	.....	.....	1	3	.....	.....	.....	1	.....	.....	.....	.....	.....
A 45 Malignant neoplasm of oesophagus	Male	14	.....	1	.....	1	.....	3	1	1	.....	.....	1	.....	.....	.....	.....
	Female	3	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	1	.....
A 46 Malignant neoplasm of stomach	Male	132	5	7	1	3	8	28	1	6	7	10	35	6	7	2	6
	Female	56	2	3	1	.....	2	10	2	5	.....	8	15	1	.....	2	5
A 47 Malignant neoplasm of intestine, except rectum	Male	60	2	4	2	.....	.....	16	7	1	.....	1	16	2	4	.....	.....
	Female	53	1	1	1	1	.....	15	2	3	4	20	3	.....	.....	1	1
A 48 Malignant neoplasm of rectum	Male	41	1	3	3	.....	.....	10	1	1	3	2	11	2	1	1	2
	Female	21	.....	1	.....	.....	1	6	1	1	1	1	8	.....	1	.....	.....
A 49 Malignant neoplasm of larynx	Male	5	.....	.....	.....	.....	.....	3	.....	.....	1	1	.....	.....	.....	.....	.....
	Female	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Male	145	5	6	2	2	7	28	3	6	3	10	44	4	11	3	11
	Female	14	2	2	1	.....	1	1	.....	.....	.....	2	3	.....	.....	1	1
A 51 Malignant neoplasm of breast	Male	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Female	102	6	8	5	1	2	34	2	9	.....	2	30	.....	2	.....	1
A 52 Malignant neoplasm of cervix uteri	Female	36	2	3	.....	.....	.....	14	1	1	.....	1	9	3	1	.....	1
A 53 Malignant neoplasm of other and unspecified parts of uterus	Female	17	1	2	.....	.....	1	4	.....	1	.....	2	5	.....	.....	1	.....
A 54 Malignant neoplasm of prostate	Male	82	2	6	2	2	4	14	3	12	2	9	17	3	3	.....	3
	Male	8	.....	.....	1	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	1
A 55 Malignant neoplasm of skin	Female	6	.....	1	1	.....	.....	1	.....	.....	.....	1	1	1	.....	.....	.....



TABLE 6—CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS  
(INCLUDING CITIES, TOWNS AND VILLAGES) IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Division No.														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A 56 Malignant neoplasm of bone and connective tissue	Male	14	1					3	1			2	5	1	1		
	Female	3						1					1				
A 57 Malignant neoplasm of all other and unspecified sites	Male	218	19	8	2	8	42	10	12	5	19	56	8	13	3	12	
	Female	156	13	3	1	6	39	3	11	5	13	46	3	5	3	4	
A Other digestive organs (155-159)	Male	91	9	2	1	1	17	5	3	2	12	24	4	5	3	1	
	Female	37	2	1	1	1	6	2	4	1	5	10	1	2			
B Other respiratory organs (160, 164, 165)	Male	3	1									2					
	Female	1						1									
C Urinary organs (180, 181)	Male	57	1	3	2	1	4	7	2	4	2	19	3	2		3	
	Female	29	1	2	1		2	7		3	2	6	1	2			
D Brain and other parts of nervous system (193)	Male	26	3	2				9	2	1		6		1		2	
	Female	9						3			1	4				1	
E Other	Male	41	3	2	1	3	9	1	4	1	3	5	1	5		3	
	Female	80	4	9	1	3	22	1	4	1	6	26	1	1		1	
A 58 Leukaemia and aleukaemia	Male	57	2	3	1		13	3	1		6	16	3	3	1	4	
	Female	32	1	1		1	13		2		1	10	1			2	
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	Male	38	1	1	2	1	1	7	2	1		4	10	2	3		3
	Female	19		1				5		2		4	4	1		1	
A Hodgkin's disease (201)	Male	12			1	1		3				1	2	1	2		1
	Female	6										2	3			1	
B Other	Male	26	1	1	1		1	4	2	1		3	8	1	1		2
	Female	13		1				5		2		2	1	1		1	
A 60 Benign neoplasms and neoplasms of unspecified nature	Male	19	2	1			1	5	2	1		5		1		1	
	Female	14	1	1				1	1	1		1	6	2			
III, IV. ALLERGIC DISORDERS AND ENDOCRINE METABOLIC AND BLOOD DISEASES	Total	219	9	10	6	1	9	47	14	11	2	20	61	8	8	3	10
	Male	125	6	3	4	1	5	32	5	8	1	13	32	3	4	2	6
	Female	94	3	7	2		4	15	9	3	1	7	29	5	4	1	4
A 61 Nontoxic goitre	Male																
	Female	2										1					1
A 62 Thyrotoxicosis with or without goitre	Male	2						2									
	Female	2	1												1		
A 63 Diabetes mellitus	Male	72	3	2	2	1	3	20	4	4		7	20	2	2		2
	Female	64	2	6	2		3	7	8	1		4	22	4	3		2
A 64 Avitaminosis and other deficiency states	Male	7					2	3		1							1
	Female																
A 65 Anaemias	Male	12		1				2	1			1	3		1		3
	Female	7						2			1	1	2				1
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases	Male	32	3	1	1			5		3	1	5	9	1	1	2	
	Female	19		1			1	6	1	2		1	5	1		1	
V. MENTAL, PSYCHONEUROTIC, AND PERSONALITY DISORDERS	Total	25	3				2	4	2	3	1	2	6				2
	Male	14		1			2	3	2	2	1		3				
	Female	11		2				1		1		2	3				2
A 67 Psychoses	Male	6		1				1	2	1	1						
	Female	6		1						1			3				1
A 68 Psychoneuroses and disorders of personality	Male	3						2					1				
	Female	1						1									
A 69 Mental deficiency	Male	5					2			1			2				
	Female	4		1								2					1
VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS	Total	1056	31	55	34	13	41	247	45	76	9	76	273	42	55	13	46
	Male	574	14	25	20	11	27	122	26	40	5	41	145	23	32	10	33
	Female	482	17	30	14	2	14	125	19	36	4	35	128	19	23	3	13
A 70 Vascular lesions affecting central nervous system	Male	509	14	24	15	9	27	104	25	38	5	36	125	19	28	10	30
	Female	443	15	26	12	2	14	116	16	33	4	31	123	15	23	1	12
A 71 Nonmeningococcal meningitis	Male	4						1					1	1			1
	Female	3						1	1							1	
A 72 Multiple sclerosis	Male	8			1	1		3				1	2				
	Female	2		1				1									
A 73 Epilepsy	Male	12				1		3	1	1			3	1	2		
	Female	8			2			1		2		2	1				
A 77 Otitis media and mastoiditis	Male	2										1	1				
	Female																
A 78 All other diseases of the nervous system and sense organs	Male	39		1	4			11		1		3	13	2	2		2
	Female	26	2	3				6	2	1		2	4	4		1	1
VII. DISEASES OF THE CIRCULATORY SYSTEM	Total	2849	108	196	62	59	131	599	93	160	53	216	805	87	119	40	121
	Male	1873	71	131	37	45	95	355	69	109	32	141	523	59	88	24	94
	Female	976	37	65	25	14	36	244	24	51	21	75	282	28	31	16	27
A 79 Rheumatic fever	Male																
	Female	2									1		1				
A 80 Chronic rheumatic heart disease	Male	60	4	3	2	1	3	12		4	2	3	12	2	5		7
	Female	54		5		1	3	10		3	2	4	21	1		3	1



TABLE 6—CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS  
(INCLUDING CITIES, TOWNS AND VILLAGES) IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Division No. 1	Division No. 2	Division No. 3	Division No. 4	Division No. 5	Division No. 6	Division No. 7	Division No. 8	Division No. 9	Division No. 10	Division No. 11	Division No. 12	Division No. 13	Division No. 14	Division No. 15
A 81 Arteriosclerotic and degenerative heart disease .....	Male	1486	50	102	25	30	78	289	53	82	21	116	433	51	69	22	65
A 82 Other diseases of the heart .....	Female	672	34	43	16	8	28	167	20	32	13	52	191	17	23	11	17
A 83 Hypertension with heart disease .....	Male	87	6	5	4	4	1	11	8	7	1	4	17	2	4	1	9
A 84 Hypertension without mention of heart .....	Female	58	2	7	3	2	2	22	1	5	2	2	28	9	4	2	4
A 85 Diseases of arteries .....	Male	80	6	7	2	1	2	11	2	28	4	8	26	2	4	1	3
A 86 Other diseases of circulatory system .....	Female	34	1	2	1	1	1	9	1	3	1	10	31	3	3	1	3
	Male	31	2	2	3	1	1	9	1	3	1	10	31	3	3	1	3
	Female	34	2	1	1	1	1	9	1	3	1	10	31	3	3	1	3
	Male	105	5	10	4	2	8	18	4	10	5	9	20	2	3	2	5
	Female	57	1	5	2	2	2	14	1	6	4	9	13	2	1	2	2
	Male	24	2	2	2	2	2	5	1	3	1	1	7	1	1	2	2
	Female	15	1	1	1	1	1	4	1	1	1	1	3	1	1	1	1
<b>VIII. DISEASES OF THE RESPIRATORY SYSTEM</b> .....	Total	566	18	22	19	2	23	109	15	36	2	54	157	37	23	7	42
	Male	377	12	13	16	2	17	79	10	24	1	37	96	26	12	5	27
	Female	189	6	9	3	6	30	5	12	1	17	61	11	11	2	15	15
A 87 Acute upper respiratory infections .....	Male	7	2	2	1	1	3	2	2	2	2	1	1	1	1	1	1
A 88 Influenza .....	Female	5	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	Male	20	1	1	1	1	3	4	2	2	6	3	3	2	2	2	2
	Female	16	1	1	1	1	2	1	1	1	4	1	1	2	2	2	2
A 89 Lobar pneumonia .....	Male	27	1	1	1	3	6	2	1	1	1	7	2	2	4	4	4
	Female	11	2	2	2	2	2	2	1	1	1	2	1	1	2	2	2
A 90 Bronchopneumonia .....	Male	144	5	4	6	2	6	27	4	6	16	50	4	3	4	7	6
	Female	76	2	2	1	1	1	16	1	3	1	6	30	6	1	3	6
A 91 Primary atypical, other and unspecified pneumonia .....	Male	52	3	3	3	1	6	2	5	3	3	7	7	3	1	12	3
	Female	36	1	1	1	4	3	1	5	3	3	9	2	2	1	3	3
A 92 Acute bronchitis .....	Male	12	1	1	1	1	1	2	1	2	1	3	4	3	1	1	1
	Female	9	3	2	1	1	1	1	1	1	1	5	3	3	1	1	1
A 93 Bronchitis, chronic and unqualified .....	Male	34	3	2	1	1	8	1	4	3	3	6	3	1	1	1	1
	Female	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 94 Hypertrophy of tonsils and adenoids .....	Male	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 95 Empyema and abscess of lung .....	Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 96 Pleurisy .....	Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 97 All other respiratory diseases .....	Male	76	3	3	4	3	24	1	4	1	5	20	4	2	1	1	1
	Female	26	3	3	4	3	5	1	2	3	11	1	2	1	2	1	1
<b>IX. DISEASES OF THE DIGESTIVE SYSTEM</b> .....	Total	302	12	16	7	9	7	67	6	21	6	18	77	23	8	5	20
	Male	178	7	10	4	7	6	37	4	12	4	12	45	14	3	2	11
	Female	124	5	6	3	2	1	30	2	9	2	6	32	9	5	3	9
A 99 Ulcer of stomach .....	Male	17	2	2	2	3	4	2	1	2	2	1	1	1	1	2	2
	Female	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A100 Ulcer of duodenum .....	Male	21	1	3	1	1	3	3	1	1	1	1	5	1	1	1	1
	Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A101 Gastritis and duodenitis .....	Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A102 Appendicitis .....	Male	5	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1
	Female	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A103 Intestinal obstruction and hernia .....	Male	34	1	2	2	2	1	2	2	2	6	8	2	1	1	4	4
	Female	22	1	1	1	1	1	7	2	2	2	6	1	2	1	2	1
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn .....	Male	27	2	2	2	2	3	1	2	1	2	1	6	8	1	3	3
	Female	29	1	1	1	1	5	1	1	1	1	3	6	1	1	6	6
A105 Cirrhosis of liver .....	Male	29	2	1	1	1	1	8	1	4	2	7	1	1	1	2	2
	Female	15	1	1	1	1	9	1	1	1	1	4	1	1	1	1	1
A106 Cholelithiasis and cholecystitis .....	Male	18	2	2	2	1	2	1	1	1	1	5	1	1	1	1	1
	Female	16	2	2	2	1	1	3	1	1	1	3	1	2	1	1	1
A107 Other diseases of digestive system .....	Male	32	1	2	2	4	7	1	2	2	11	1	1	1	1	1	1
	Female	26	2	1	2	1	4	1	2	1	12	2	2	2	2	2	2
<b>X. DISEASES OF THE GENITO-URINARY SYSTEM</b> .....	Total	129	4	7	10	1	7	26	4	10	3	4	34	3	8	1	7
	Male	78	4	7	10	1	5	15	2	7	2	4	22	2	4	1	3
	Female	51	4	3	3	1	2	11	2	3	1	12	12	1	4	1	4
A109 Chronic, other and unspecified nephritis .....	Male	27	2	2	2	2	2	5	1	1	1	6	1	3	1	2	2
	Female	22	2	2	2	2	2	8	1	2	1	3	3	2	2	2	2
A110 Infections of kidney .....	Male	20	1	1	1	1	5	1	3	1	1	9	1	1	1	1	1
	Female	18	1	2	1	1	1	1	1	1	1	5	1	2	1	2	2
A111 Calculi of urinary system .....	Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A112 Hyperplasia of prostate .....	Male	19	3	3	3	2	2	1	1	1	2	6	1	1	1	1	1
A114 Other diseases of genito-urinary system .....	Male	10	1	1	1	1	3	1	3	3	1	1	1	1	1	1	1
	Female	9	1	1	1	1	2	1	1	1	1	4	1	1	1	1	1

TABLE 6—CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS  
(INCLUDING CITIES, TOWNS AND VILLAGES) IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Division No.														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>XI. DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM</b>	Total	14				1		2	1	1	1		2	1			5
A115 Sepsis of pregnancy, childbirth and the puerperium	Female	1															1
A116 Toxaemias of pregnancy and the puerperium	Female	3				1							1				1
A117 Haemorrhage of pregnancy and childbirth	Female	3							1					1			1
A118 Abortion without mention of sepsis or toxæmia	Female	2						1					1				
A119 Abortion with sepsis	Female	2						1			1						
A120 Other complications of pregnancy, childbirth and the puerperium	Female	3								1							2
<b>XII, XIII. DISEASES OF THE SKIN AND MUSCULOSKELETAL SYSTEM</b>	Total	30	1		1		2	3	1			4	12	2	2		2
	Male	10							1			2	5	1	1		
	Female	20	1		1		2	3				2	7	1	1		2
A121 Infections of skin and subcutaneous tissue	Male	2							1						1		
	Female	1												1			
A122 Arthritis and spondylitis	Male	3															
	Female	12	1		1		2	1				2	2		1		
A124 Osteomyelitis and periostitis	Male	1															
	Female	1															
A126 All other diseases of skin and musculoskeletal system	Male	5										1	3	1			
	Female	6						2					2				2
<b>XIV. CONGENITAL MALFORMATIONS</b>	Total	188	13	10	6	1	4	47	4	10	4	9	54	3	7	4	12
	Male	103	12	3	4		2	21	4	3	4	4	30	2	4	1	9
	Female	85	1	7	2	1	2	26		7		5	24	1	3	3	3
A127 Spina bifida and meningocele	Male	4	1				1						1	1			
	Female	9						4				1	2	1		1	
A128 Congenital malformations of circulatory system	Male	55	8	3	4			6	1	1	2	3	18		2	1	6
	Female	38	1	4	1	1		8		5		2	14		1		1
A129 All other congenital malformations	Male	44	3				1	15	3	2	2	1	11	1	2		3
	Female	38		3	1		2	14		2		2	8		2	2	2
<b>XV. CERTAIN DISEASES OF EARLY INFANCY</b>	Total	522	16	24	22	8	10	141	18	17	8	16	147	37	16	13	29
	Male	324	12	17	16	6	5	90	8	8	4	12	89	22	8	6	21
	Female	198	4	7	6	2	5	51	10	9	4	4	58	15	8	7	8
A130 Birth injuries	Male	53		1	2	1		16	1	2		3	18	3		2	4
	Female	28						9	2	1			13	1			1
A131 Postnatal asphyxia and atelectasis	Male	79	4	3	6		1	22	4		1	3	25	3	1	1	5
	Female	39	2		1			7	2	4	1	1	12	3	2	3	1
A132 Infections of the newborn	Male	24	1	2	2	2		4		1	1	1	6	2			2
	Female	25	1	1	2	2		2			2		6	2	3	2	4
A133 Haemolytic disease of newborn	Male	13			1			3		1	1	1	2	3			1
	Female	2						1	1								
A134 All other defined diseases of early infancy	Male	11			1	1		2	1				3	1	1		1
	Female	7	1					4				1		1			
A135 Ill-defined diseases peculiar to early infancy, and immaturity unqualified	Male	144	7	11	4	2	4	43	2	4	1	4	35	10	6	3	8
	Female	97		6	4		5	28	5	4	1	2	27	8	3	2	2
<b>XVI. SYMPTOMS, SENILITY, AND ILL-DEFINED CONDITIONS</b>	Total	278	2	6	3	1	8	191	4	6	2		28	8	8		11
	Male	186	2	5	3		6	133	2	2			15	5	6		7
	Female	92		1		1	2	58	2	4	2		13	3	2		4
A136 Senility without mention of psychosis	Male	27		2			1	14		1			4	1	3		1
	Female	30				1	1	13	2	4	1		5		1		2
A137 Ill-defined and unknown causes	Male	159	2	3	3		5	119	2	1			11	4	3		6
	Female	62		1			1	45			1		8	3	1		2
<b>EXVII. ACCIDENTS, POISONINGS, AND VIOLENCE (CLASSIFICATION ACCORDING TO EXTERNAL CAUSE)</b>	Total	796	25	45	23	9	29	158	27	60	11	47	225	41	36	12	48
	Male	613	17	30	19	9	18	118	21	51	8	36	175	32	28	10	41
	Female	183	8	15	4		11	40	6	9	3	11	50	9	8	2	7
AE138 Motor vehicle accidents	Male	221	4	5	7	4	4	40	7	21	3	14	67	9	18	6	12
	Female	69	3	6	3		2	16	1	5	1	4	18	3	2	1	4
A Traffic accidents (810-825)	Male	215	4	4	7	4	4	39	7	21	2	14	65	9	18	6	11
	Female	65	3	6	3		2	15	1	5	1	2	18	3	2	1	3
B Non-traffic accidents	Male	6		1				1			1		2				1
	Female	4						1				2					1

## BUREAU OF VITAL STATISTICS

TABLE 6—CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS  
(INCLUDING CITIES, TOWNS AND VILLAGES) IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)		SEX	Total	Division No. 1	Division No. 2	Division No. 3	Division No. 4	Division No. 5	Division No. 6	Division No. 7	Division No. 8	Division No. 9	Division No. 10	Division No. 11	Division No. 12	Division No. 13	Division No. 14	Division No. 15	
AE139	Other transport accidents	Male	38	...	...	...	...	2	7	...	3	...	3	17	5	...	...	1	
		Female	4	...	...	...	...	...	...	...	...	...	...	3	1	...	...	...	
A	Submersion of occupant of small boat (850)	Male	16	...	...	...	...	...	2	...	1	...	3	9	1	...	...	...	
		Female	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	
C	Other	Male	22	...	...	...	...	2	5	...	2	...	...	8	4	...	...	1	
		Female	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	
AE140	Accidental poisoning	Male	31	3	3	1	...	1	5	1	5	1	...	4	1	1	...	5	
		Female	7	...	...	...	...	1	1	1	1	...	...	3	...	...	...	...	
AE141	Accidental falls	Male	55	2	2	1	1	1	16	2	2	...	4	16	3	2	...	3	
		Female	43	3	2	1	...	3	11	1	1	2	4	14	1	1	...	...	
AE142	Accident caused by machinery	Male	36	...	2	1	2	4	6	3	...	...	1	10	1	4	...	2	
		Female	5	...	1	...	...	1	1	...	...	...	...	...	1	1	...	...	
AE143	Accident caused by fire and explosion of combustible material	Male	15	...	1	2	...	...	2	...	3	...	1	2	...	1	...	3	
		Female	13	2	2	...	...	...	2	...	...	...	2	4	...	...	...	1	
AE144	Accident caused by hot substance, corrosive liquid, steam and radiation	Male	4	2	...	...	...	...	...	...	...	...	...	1	1	...	...	...	
		Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
AE145	Accident caused by firearm	Male	10	1	...	1	...	...	...	1	1	...	...	3	...	...	1	2	
		Female	3	...	1	...	...	...	...	...	...	...	...	...	1	1	...	...	
AE146	Accidental drowning and submersion	Male	27	...	4	1	...	...	11	...	...	...	3	4	1	1	...	2	
		Female	7	...	1	...	...	1	3	...	...	...	...	...	...	...	...	...	
AE147	All other accidental causes	Male	63	2	9	2	1	1	9	...	8	2	2	16	4	...	1	6	
		Female	8	...	...	...	...	...	...	...	1	...	...	2	1	...	...	...	
AE148	Suicide and self-inflicted injury	Male	104	3	4	3	1	5	22	3	8	2	7	32	7	...	2	5	
		Female	13	...	...	...	...	1	2	1	1	...	1	5	1	1	...	...	
AE149	Homicide and injury purposely inflicted by other persons (not in war)	Male	9	...	...	...	...	...	4	...	...	...	1	3	...	1	...	...	
		Female	11	...	2	...	...	1	1	3	...	...	...	1	1	1	1	...	
NXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO NATURE OF INJURY)			Total	796	25	45	23	9	29	158	27	60	11	47	225	41	36	12	48
		Male	613	17	30	19	9	18	118	21	51	8	36	175	32	28	10	...	41
		Female	183	8	15	4	...	11	40	6	9	3	11	50	9	8	2	7	...
AN138	Fracture of skull	Male	113	3	5	2	1	4	22	10	9	2	3	35	4	5	3	5	2
		Female	33	...	3	3	...	2	7	3	2	...	3	7	1	...	...	...	
AN139	Fracture of spine and trunk	Male	24	1	1	...	1	1	4	1	2	...	...	6	2	1	...	4	
		Female	9	1	...	...	...	2	2	...	...	...	1	1	1	...	...	...	
AN140	Fracture of limbs	Male	38	...	1	1	1	1	6	2	4	...	4	13	1	3	...	2	
		Female	38	3	2	1	...	2	11	1	1	2	3	10	...	2	...	...	
AN143	Head injury (excluding fracture)	Male	81	3	2	...	...	4	17	1	6	3	3	29	4	4	1	4	
		Female	20	1	3	...	...	1	4	1	...	...	...	4	3	2	...	...	
AN144	Internal injury of chest, abdomen, and pelvis	Male	132	1	2	8	3	4	26	2	14	1	11	36	8	7	2	7	
		Female	26	1	1	...	...	...	6	...	3	1	2	7	...	3	...	2	
AN145	Laceration and open wounds	Male	19	1	1	2	...	...	2	2	2	...	1	4	2	...	2	...	
		Female	3	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	
AN146	Superficial injury, contusion and crushing with intact skin surface	Male	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	
		Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
AN147	Effects of foreign body entering through orifice	Male	11	1	1	...	...	...	...	3	...	...	...	2	1	...	...	3	
		Female	3	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	
AN148	Burns	Male	28	2	3	2	1	...	4	1	1	...	1	7	3	1	...	2	
		Female	11	...	4	...	...	...	1	...	...	...	2	4	...	...	...	...	
AN149	Effects of poisons	Male	63	3	5	2	1	3	14	1	6	1	2	15	1	1	...	8	
		Female	16	2	...	...	...	1	4	...	1	...	...	6	...	...	...	1	
AN150	All other and unspecified effects of external causes	Male	103	2	10	2	1	1	23	1	4	1	11	27	6	6	2	6	
		Female	24	...	2	...	...	3	5	1	...	...	...	8	2	...	1	2	

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1959

CAUSE OF DEATH (Intermediate List)	SEX										
		Total	Bowness	Calgary	Camrose	Edmonton	Grande Prairie	Jasper Place	Lethbridge	Medicine Hat	Red Deer
<b>ALL CAUSES</b> .....	Total	4184	38	1596	113	1730	45	78	261	207	116
	Male	2536	26	954	72	1052	34	45	163	123	67
	Female	1648	12	642	41	678	11	33	98	84	49
<b>I. INFECTIVE AND PARASITIC DISEASES</b> .....	Total	43	1	15	1	17	1	...	3	3	2
	Male	29	1	7	1	13	1	...	3	3	2
	Female	14	...	8	...	4	...	...	1	...	1
A 1 Tuberculosis of respiratory system .....	Male	13	...	3	1	7	...	...	1	1	...
	Female	6	...	3	...	3	...	...	...	...	...
A 4 Tuberculosis of bones and joints .....	Male	...	...	...	...	...	...	...	...	...	...
	Female	1	...	...	...	1	...	...	...	...	...
A 5 Tuberculosis, all other forms .....	Male	2	...	...	...	1	1	...	...	...	...
	Female	2	...	2	...	...	...	...	...	...	...
A 8 Tabes dorsalis .....	Male	1	...	...	...	...	...	...	1	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A 9 General paralysis of insane .....	Male	4	...	2	...	1	...	...	...	1	...
	Female	...	...	...	...	...	...	...	...	...	...
A 10 All other syphilis .....	Male	3	...	...	...	2	...	...	1	...	...
	Female	2	...	2	...	...	...	...	...	...	...
A 16 Dysentery, all forms .....	Male	...	...	...	...	...	...	...	...	...	...
	Female	1	...	...	...	...	...	...	...	...	1
A 17 Scarlet fever .....	Male	1	...	...	...	...	...	...	...	...	1
	Female	...	...	...	...	...	...	...	...	...	...
A 28 Acute poliomyelitis .....	Male	...	...	...	...	...	...	...	...	...	...
	Female	1	...	...	...	...	...	...	...	...	...
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis .....	Male	1	1	...	...	...	...	...	...	1	...
	Female	...	...	...	...	...	...	...	...	...	...
A 32 Measles .....	Male	1	...	...	...	1	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A 34 Infectious hepatitis .....	Male	...	...	...	...	...	...	...	...	...	...
	Female	1	...	1	...	...	...	...	...	...	...
A 39 Hydatid disease .....	Male	1	...	...	...	1	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A 43 All other diseases classified as infective and parasitic .....	Male	2	...	2	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...
<b>II. NEOPLASMS</b> .....	Total	722	2	283	20	301	4	15	48	35	14
	Male	407	2	151	14	177	3	4	30	17	9
	Female	315	...	132	6	124	1	11	18	18	5
A 44 Malignant neoplasm of buccal cavity and pharynx .....	Male	13	...	3	...	8	...	...	1	1	...
	Female	5	...	3	...	2	...	...	...	...	...
A 45 Malignant neoplasm of oesophagus .....	Male	8	...	3	...	4	...	...	1	...	...
	Female	2	...	2	...	...	...	...	...	...	...
A 46 Malignant neoplasm of stomach .....	Male	59	...	23	3	26	...	...	4	3	...
	Female	26	...	9	1	13	...	1	...	2	...
A 47 Malignant neoplasm of intestine, except rectum .....	Male	34	...	15	1	12	1	...	4	1	...
	Female	33	...	12	1	16	1	1	...	1	1
A 48 Malignant neoplasm of rectum .....	Male	18	...	7	...	8	...	...	2	1	...
	Female	14	...	5	...	8	...	...	...	...	1
A 49 Malignant neoplasm of larynx .....	Male	3	...	3	...	...	...	...	...	...	...
	Female	1	...	1	...	...	...	...	...	...	...
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary .....	Male	72	...	28	1	35	1	1	1	3	2
	Female	7	...	1	...	3	...	...	1	2	...
A 51 Malignant neoplasm of breast .....	Male	1	...	...	...	1	...	...	...	...	...
	Female	61	...	30	...	22	...	1	3	5	...
A 52 Malignant neoplasm of cervix uteri .....	Female	22	...	10	1	8	...	1	2	...	...
A 53 Malignant neoplasm of other and unspecified parts of uterus .....	Female	10	...	4	...	3	...	1	1	1	...
A 54 Malignant neoplasm of prostate .....	Male	43	...	13	5	14	1	...	5	2	3
A 55 Malignant neoplasm of skin .....	Male	2	...	1	...	1	...	...	...	...	...
	Female	1	...	1	...	...	...	...	...	...	...
A 56 Malignant neoplasm of bone and connective tissue .....	Male	7	...	2	...	5	...	...	...	...	...
	Female	2	...	1	...	1	...	...	...	...	...
A 57 Malignant neoplasm of all other and unspecified sites .....	Male	93	1	35	2	40	...	2	8	1	4
	Female	87	...	34	3	33	...	3	8	5	1
A Other digestive organs (155-159) .....	Male	40	1	16	2	17	...	...	4	...	...
	Female	15	...	6	1	6	...	...	2	...	...
B Other respiratory organs (160, 164, 165) .....	Male	3	...	...	...	2	...	...	1	...	...
	Female	...	...	...	...	...	...	...	...	...	...
C Urinary organs (180, 181) .....	Male	25	...	6	...	14	...	1	2	1	1
	Female	13	...	6	...	4	...	1	1	1	...
D Brain and other parts of nervous system (193) .....	Male	14	...	7	...	4	...	1	1	...	1
	Female	6	...	3	...	3	...	...	...	...	...
E Other .....	Male	11	...	6	...	3	...	...	...	...	2
	Female	53	...	19	2	20	...	2	5	4	1



TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Bowless	Calgary	Camrose	Edmonton	Grande Prairie	Jasper Place	Lethbridge	Medicine Hat	Red Deer
A 58 Leukaemia and aleukaemia .....	Male	24	1	7	...	11	...	...	3	2	...
	Female	25	...	13	...	9	...	...	1	1	1
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system .....	Male	19	...	7	1	9	...	...	1	1	...
	Female	11	...	5	...	3	...	1	1	...	1
A Hodgkin's disease (201) .....	Male	4	...	3	...	1	...	...	...	...	...
	Female	3	...	...	...	2	...	1	...	...	...
B Other .....	Male	15	...	4	1	8	...	...	1	1	...
	Female	8	...	5	...	1	...	...	1	...	1
A 60 Benign neoplasms and neoplasms of unspecified nature .....	Male	11	...	5	...	3	...	1	...	2	...
	Female	8	...	1	...	3	...	2	1	1	...
<b>III, IV. ALLERGIC DISORDERS AND ENDOCRINE METABOLIC AND BLOOD DISEASES</b>	Total	107	...	39	3	52	1	2	3	6	1
	Male	64	...	28	2	27	...	1	1	4	1
	Female	43	...	11	1	25	1	1	2	2	...
A 61 Nontoxic goitre .....	Male	1	...	...	...	...	1	...	...	...	...
	Female	1	...	...	...	...	...	...	...	...	...
A 62 Thyrotoxicosis with or without goitre .....	Male	2	...	2	...	...	...	...	...	...	...
	Female	1	...	...	...	...	...	...	...	...	...
A 63 Diabetes mellitus .....	Male	36	...	17	1	15	...	1	...	2	...
	Female	26	...	15	...	18	...	1	1	1	...
A 64 Avitaminosis and other deficiency states .....	Male	2	...	2	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A 65 Anaemias .....	Male	6	...	2	1	3	...	...	...	...	...
	Female	2	...	...	...	2	...	...	...	...	...
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases .....	Male	18	...	5	...	9	...	...	1	2	1
	Female	13	...	6	1	5	...	...	1	...	...
<b>V. MENTAL, PSYCHONEUROTIC, AND PERSONALITY DISORDERS</b>	Total	11	...	4	...	4	...	2	...	1	...
	Male	5	...	3	...	1	...	1	...	...	...
	Female	6	...	1	...	3	...	1	...	1	...
A 67 Psychoses .....	Male	2	...	1	...	...	...	...	1	...	...
	Female	4	...	...	...	3	...	...	...	...	1
A 68 Psychoneuroses and disorders of personality .....	Male	2	...	2	...	...	...	...	...	...	...
	Female	1	...	1	...	...	...	...	...	...	...
A 69 Mental deficiency .....	Male	1	...	...	...	1	...	...	...	...	...
	Female	1	...	...	...	...	...	1	...	...	...
<b>VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS</b>	Total	525	6	196	18	218	6	6	32	23	20
	Male	260	4	96	11	109	5	3	13	9	10
	Female	265	2	100	7	109	1	3	19	14	10
A 70 Vascular lesions affecting central nervous system .....	Male	225	4	79	11	94	5	3	12	9	8
	Female	248	2	93	7	104	1	3	16	14	8
A 71 Nonmeningococcal meningitis .....	Male	1	...	1	...	...	...	...	...	...	...
	Female	1	...	...	...	...	...	...	...	...	...
A 72 Multiple sclerosis .....	Male	5	...	3	...	2	...	...	...	...	...
	Female	2	...	1	...	...	...	...	1	...	...
A 73 Epilepsy .....	Male	6	...	3	...	2	...	...	...	...	1
	Female	4	...	1	...	1	...	...	...	...	2
A 77 Otitis media and mastoiditis .....	Male	1	...	...	...	1	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A 78 All other diseases of the nervous system and sense organs .....	Male	22	...	10	...	10	...	1	...	1	...
	Female	10	...	4	...	4	...	2	...	...	...
<b>VII. DISEASES OF THE CIRCULATORY SYSTEM</b>	Total	1400	9	466	37	613	16	23	116	87	33
	Male	874	7	271	23	391	13	17	76	57	19
	Female	526	2	195	14	222	3	6	40	30	14
A 79 Rheumatic fever .....	Male	...	...	...	...	...	...	...	...	...	...
	Female	1	...	...	...	1	...	...	...	...	...
A 80 Chronic rheumatic heart disease .....	Male	27	...	10	...	12	...	...	3	2	...
	Female	29	...	7	3	16	...	...	...	...	1
A 81 Arteriosclerotic and degenerative heart disease .....	Male	701	7	219	20	319	12	14	57	40	13
	Female	373	1	134	9	153	3	3	33	28	9
A 82 Other diseases of heart .....	Male	29	...	7	1	11	1	2	...	6	1
	Female	28	...	20	...	7	...	...	...	...	...
A 83 Hypertension with heart disease .....	Male	43	...	7	1	22	...	1	6	5	1
	Female	50	...	17	1	27	...	1	4	...	...
A 84 Hypertension without mention of heart .....	Male	16	...	8	...	7	...	...	...	...	1
	Female	16	...	4	...	11	...	...	...	...	...
A 85 Diseases of arteries .....	Male	45	...	16	1	14	...	...	8	4	2
	Female	24	...	12	...	6	...	...	3	1	2
A 86 Other diseases of circulatory system .....	Male	13	...	4	...	6	...	...	2	...	1
	Female	5	...	1	1	1	...	1	...	1	...

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Bowness	Calgary	Camrose	Edmonton	Grande Prairie	Jasper Place	Lethbridge	Medicine Hat	Red Deer
<b>VIII. DISEASES OF THE RESPIRATORY SYSTEM</b>	Total	252	5	81	22	104	2	7	10	14	7
	Male	167	2	61	15	63	2	4	7	8	5
	Female	85	3	20	7	41	...	3	3	6	2
A 87 Acute upper respiratory infections	Male	2	...	2	...	...	...	...	...	...	...
	Female	1	...	...	...	...	...	1	...	...	...
A 88 Influenza	Male	9	...	3	6	...	...	...	...	...	...
	Female	6	...	1	3	1	...	...	1	...	...
A 89 Lobar pneumonia	Male	12	...	6	...	5	1	...	...	...	...
	Female	4	1	1	...	1	...	...	1	...	...
A 90 Bronchopneumonia	Male	70	2	19	9	28	...	3	3	4	2
	Female	37	2	10	3	18	...	2	...	2	...
A 91 Primary atypical, other and unspecified pneumonia	Male	12	...	4	...	4	1	...	2	...	1
	Female	13	...	2	...	7	...	...	1	1	2
A 92 Acute bronchitis	Male	4	...	...	...	2	...	...	1	1	...
	Female	3	...	...	...	3	...	...	...	...	...
A 93 Bronchitis, chronic and unqualified	Male	15	...	7	...	5	...	...	1	1	1
	Female	3	...	...	...	1	...	...	...	2	...
A 94 Hypertrophy of tonsils and adenoids	Male	2	...	...	...	...	...	...	...	...	...
	Female	2	...	1	...	...	...	...	...	1	...
A 95 Empyema and abscess of lung	Male	3	...	...	...	3	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A 97 All other respiratory diseases	Male	40	...	20	...	16	...	1	...	2	1
	Female	16	...	5	1	10	...	...	...	...	...
<b>IX. DISEASES OF THE DIGESTIVE SYSTEM</b>	Total	149	1	60	2	58	...	4	8	8	8
	Male	84	1	34	...	34	...	3	6	3	3
	Female	65	...	26	2	24	...	1	2	5	5
A 99 Ulcer of stomach	Male	7	1	3	...	2	...	...	1	...	...
	Female	4	...	3	...	1	...	...	...	...	...
A100 Ulcer of duodenum	Male	15	...	8	...	3	...	1	3	...	...
	Female	2	...	1	...	...	...	...	...	...	1
A102 Appendicitis	Male	3	...	3	...	...	...	...	...	...	...
	Female	3	...	1	2	...	...	...	...	...	...
A103 Intestinal obstruction and hernia	Male	7	...	1	6	...	...	...	...	...	...
	Female	14	...	6	1	6	...	...	...	...	1
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn	Male	10	...	2	...	6	...	...	...	1	1
	Female	19	...	5	...	3	...	...	...	...	...
A105 Cirrhosis of liver	Male	19	...	8	...	6	...	...	...	1	2
	Female	11	...	7	...	3	...	...	...	2	...
A106 Cholelithiasis and cholecystitis	Male	6	...	2	...	3	...	1	...	...	...
	Female	5	...	1	...	1	...	...	...	2	1
A107 Other diseases of digestive system	Male	17	...	7	...	8	...	1	1	...	...
	Female	17	...	3	...	8	...	1	1	2	2
<b>X. DISEASES OF THE GENITO-URINARY SYSTEM</b>	Total	58	...	21	1	28	1	...	3	1	3
	Male	35	...	13	1	17	...	...	2	...	2
	Female	23	...	8	...	11	1	...	1	1	1
A109 Chronic, other and unspecified nephritis	Male	11	...	5	...	4	...	...	1	...	1
	Female	9	...	5	...	3	...	...	...	...	1
A110 Infections of kidney	Male	13	...	4	1	8	...	...	...	...	...
	Female	8	...	1	...	5	1	...	1	...	...
A111 Calculi of urinary system	Male	1	...	...	...	...	...	...	1	...	...
	Female	...	...	...	...	...	...	...	...	...	...
A112 Hyperplasia of prostate	Male	6	...	2	...	4	...	...	...	...	...
	Female	4	...	2	...	1	...	...	...	...	1
A114 Other diseases of genito-urinary system	Male	6	...	2	...	3	...	...	...	1	...
	Female	...	...	...	...	...	...	...	...	...	...
<b>XI. DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM</b>	Total	5	...	2	...	2	...	...	...	...	1
A116 Toxaemias of pregnancy and the puerperium	Female	1	...	...	...	1	...	...	...	...	...
A118 Abortion without mention of sepsis or toxæmia	Female	2	...	1	...	1	...	...	...	...	...
A119 Abortion with sepsis	Female	1	...	1	...	...	...	...	...	...	...
A120 Other complications of pregnancy, childbirth and the puerperium	Female	1	...	...	...	...	...	...	...	...	1
<b>XII, XIII. DISEASES OF THE SKIN AND MUSCULO-SKELETAL SYSTEM</b>	Total	15	...	3	2	9	...	1	...	...	...
	Male	4	...	...	1	3	...	...	...	...	...
	Female	11	...	3	1	6	...	1	...	...	...
A122 Arthritis and spondylitis	Male	2	...	...	1	1	...	...	...	...	...
	Female	6	...	1	1	4	...	...	...	...	...



TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Bowness	Calgary	Camrose	Edmonton	Grande Prairie	Jasper Place	Lethbridge	Medicine Hat	Red Deer
A124 Osteomyelitis and periostitis	Male	1	.....	.....	.....	1	.....	.....	.....	.....	.....
A126 All other diseases of skin and musculoskeletal system	Female	2	.....	.....	.....	2	.....	.....	.....	.....	.....
	Male	4	.....	2	.....	1	1	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>XIV. CONGENITAL MALFORMATIONS</b>	Total	96	.....	38	1	37	4	4	5	4	3
	Male	53	.....	17	1	23	3	2	2	4	1
	Female	43	.....	21	.....	14	1	2	3	.....	2
A127 Spina bifida and meningocele	Male	1	.....	.....	.....	.....	.....	.....	.....	1	.....
A128 Congenital malformations of circulatory system	Female	5	.....	.....	.....	2	.....	.....	.....	.....	.....
A129 All other congenital malformations	Male	27	.....	5	1	14	2	1	2	2	.....
	Female	18	.....	6	.....	9	.....	1	1	.....	.....
	Male	25	.....	12	.....	9	1	1	.....	1	1
	Female	20	.....	12	.....	3	1	1	2	.....	1
<b>XV. CERTAIN DISEASES OF EARLY INFANCY</b>	Total	272	4	115	.....	114	6	7	10	11	5
	Male	173	1	79	.....	67	3	4	7	9	3
	Female	99	3	36	.....	47	3	3	3	2	2
A130 Birth injuries	Male	30	.....	15	.....	13	.....	1	.....	.....	1
A131 Postnatal asphyxia and atelectasis	Female	17	.....	5	.....	11	1	.....	.....	.....	.....
A132 Infections of the newborn	Male	45	1	18	.....	19	1	1	1	4	.....
	Female	20	1	5	.....	7	1	2	.....	2	2
A133 Haemolytic disease of newborn	Male	11	.....	4	.....	6	.....	.....	.....	1	.....
A134 All other defined diseases of early infancy	Female	8	.....	2	.....	5	1	.....	.....	.....	.....
A135 Ill-defined diseases peculiar to early infancy, and immaturity unqualified.	Male	5	.....	3	.....	2	.....	.....	.....	.....	.....
	Female	1	.....	1	.....	.....	.....	.....	.....	.....	.....
	Male	5	.....	2	.....	2	.....	1	.....	.....	.....
	Female	2	.....	2	.....	.....	.....	.....	.....	.....	.....
	Male	77	.....	37	.....	25	2	1	6	4	2
	Female	51	2	21	.....	24	.....	1	3	.....	.....
<b>XVI. SYMPTOMS, SENILITY, AND ILL-DEFINED CONDITIONS</b>	Total	189	3	161	.....	21	.....	1	3	.....	.....
	Male	128	1	112	.....	12	.....	.....	3	.....	.....
	Female	61	2	49	.....	9	.....	1	.....	.....	.....
A136 Senility without mention of psychosis	Male	17	.....	13	.....	3	.....	.....	1	.....	.....
A137 Ill-defined and unknown causes	Female	16	.....	12	.....	4	.....	.....	.....	.....	.....
	Male	111	1	99	.....	9	.....	.....	2	.....	.....
	Female	45	2	37	.....	5	.....	1	.....	.....	.....
<b>EXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO EXTERNAL CAUSE)</b>	Total	340	7	112	6	152	4	8	18	15	18
	Male	253	7	82	3	115	4	7	12	10	13
	Female	87	.....	30	3	37	.....	1	6	5	5
AE138 Motor vehicle accidents	Male	91	3	30	1	43	2	3	3	3	3
A Traffic accidents (810-825)	Female	35	.....	12	.....	12	.....	1	4	2	4
B Non-traffic accidents	Male	90	3	30	1	42	2	3	3	3	3
	Female	35	.....	12	.....	12	.....	1	4	2	4
	Male	1	.....	.....	.....	1	.....	.....	.....	.....	.....
AE139 Other transport accidents	Female	19	.....	4	.....	13	.....	1	.....	.....	1
A Submersion of occupant of small boat (850)	Male	2	.....	.....	.....	2	.....	.....	.....	.....	.....
C Other	Female	10	.....	1	.....	8	.....	1	.....	.....	.....
	Male	2	.....	.....	.....	2	.....	.....	.....	.....	.....
	Female	9	.....	3	.....	5	.....	.....	.....	.....	1
AE140 Accidental poisoning	Male	13	.....	3	.....	.....	.....	.....	2	2	4
	Female	4	.....	.....	.....	3	.....	.....	.....	.....	.....
AE141 Accidental falls	Male	34	2	11	1	15	.....	1	2	2	1
	Female	28	.....	8	3	13	.....	.....	1	3	.....
AE142 Accidents caused by machinery	Male	12	.....	5	.....	6	.....	.....	1	.....	.....
AE143 Accident caused by fire and explosion of combustible material	Female	1	.....	1	.....	.....	.....	.....	.....	.....	.....
AE144 Accident caused by hot substance, corrosive liquid, steam, and radiation	Male	5	.....	1	.....	2	1	.....	.....	.....	1
AE145 Accident caused by firearm	Female	1	.....	.....	.....	1	.....	.....	.....	.....	.....
AE146 Accidental drowning and submersion	Male	14	.....	9	1	2	1	1	.....	.....	.....
AE147 All other accidental causes	Female	3	.....	3	.....	.....	.....	.....	.....	.....	.....
	Male	22	1	5	.....	8	.....	1	4	.....	3
	Female	4	.....	3	.....	1	.....	.....	.....	.....	.....

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1959—Continued

CAUSE OF DEATH (Intermediate List)	SEX	Total	Bowness	Calgary	Camrose	Edmonton	Grande Prairie	Jasper Place	Lethbridge	Medicine Hat	Red Deer
AE148 Suicide and self-inflicted injury .....	Male	38	1	14	.....	20	.....	.....	.....	2	1
	Female	6	.....	2	.....	4	.....	.....	.....	.....	.....
AE149 Homicide and injury purposely inflicted by other persons (not in war) .....	Male	2	.....	.....	.....	2	.....	.....	.....	.....	.....
	Female	3	.....	1	.....	1	.....	1	.....	.....	.....
<b>NXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO NATURE OF INJURY) .....</b>	Total	340	7	112	6	152	4	8	18	15	18
	Male	253	7	82	3	115	4	7	12	10	13
	Female	87	.....	30	3	37	.....	1	6	5	5
AN138 Fracture of skull .....	Male	50	4	14	.....	22	1	1	4	2	2
	Female	13	.....	5	.....	5	.....	1	1	.....	1
AN139 Fracture of spine and trunk .....	Male	9	.....	4	.....	4	.....	.....	.....	1	.....
	Female	4	.....	1	.....	1	.....	.....	.....	1	1
AN140 Fracture of limbs .....	Male	17	.....	4	1	10	.....	1	.....	.....	1
	Female	26	.....	10	3	9	.....	.....	1	3	.....
AN143 Head injury (excluding fracture) .....	Male	37	1	13	1	16	.....	2	1	2	1
	Female	6	.....	3	.....	2	.....	.....	1	.....	.....
AN144 Internal injury of chest, abdomen, and pelvis .....	Male	49	.....	18	.....	27	1	.....	1	1	1
	Female	13	.....	4	.....	6	.....	.....	.....	1	2
AN145 Laceration and open wounds .....	Male	7	.....	2	.....	4	.....	.....	.....	.....	1
	Female	2	.....	.....	.....	2	.....	.....	.....	.....	.....
AN146 Superficial injury, contusion and crushing with intact skin surface .....	Male	1	.....	.....	.....	1	.....	.....	.....	.....	.....
	Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
AN147 Effects of foreign body entering through orifice .....	Male	3	.....	.....	.....	1	.....	.....	.....	.....	2
	Female	1	.....	.....	.....	1	.....	.....	.....	.....	.....
AN148 Burns .....	Male	9	.....	2	.....	4	.....	.....	1	1	1
	Female	5	.....	1	.....	2	.....	.....	2	.....	.....
AN149 Effects of poisons .....	Male	29	1	9	.....	10	1	.....	2	2	4
	Female	6	.....	1	.....	4	.....	.....	.....	.....	1
AN150 All other and unspecified effects of external causes .....	Male	42	1	16	1	16	1	3	3	1	.....
	Female	11	.....	5	.....	5	.....	.....	1	.....	.....



A 28 Acute poliomyelitis	Male	1	2	1	3	1	2	1	4	9	4	7	14	15	25	41	65	93	126	172	173	217	200	120	62		
A 29 Acute infectious encephalitis	Male	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	173	217	200	120	62		
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis	Male	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 32 Measles	Male	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 34 Infectious hepatitis	Male	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 39 Hydatid disease	Male	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 43 All other diseases classified as infective and parasitic	Male	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
II. NEOPLASMS																											
A 44 Malignant neoplasm of buccal cavity and pharynx	Male	1390	8	3	2	13	5	8	5	8	9	4	7	14	15	25	41	65	93	126	172	173	217	200	120	62	
A 45 Malignant neoplasm of oesophagus	Female	849	5	2	1	8	2	5	3	5	3	1	2	6	10	11	16	28	40	78	93	116	142	138	77	40	
A 46 Malignant neoplasm of stomach	Male	541	3	1	1	5	3	3	4	3	1	2	8	5	14	25	37	49	78	93	116	142	138	77	40		
A 47 Malignant neoplasm of intestine, except rectum	Male	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 48 Malignant neoplasm of rectum	Female	56	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
A 49 Malignant neoplasm of larynx	Male	60	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Female	41	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
A 51 Malignant neoplasm of breast	Male	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 52 Malignant neoplasm of cervix uteri	Female	145	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
A 53 Malignant neoplasm of other and unspecified parts of uterus	Female	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 54 Malignant neoplasm of prostate	Male	102	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 55 Malignant neoplasm of testis	Male	36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 56 Malignant neoplasm of bone and connective tissue	Female	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A 57 Malignant neoplasm of all other and unspecified sites	Male	82	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
A Other digestive organs (155-159)	Female	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
B Other respiratory organs (160, 164, 165)	Male	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		



[illegible]





[illegible]



A137 Ill-defined and unknown		159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Male	Female	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
EXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO EXTERNAL CAUSE)																							
AE138 Motor vehicle accidents		796	29	19	10	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A Traffic accidents		613	29	19	11	2	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(810-825)		183	10	8	4	3	7	8	14	9	7	63	54	32	55	48	40	32	36	29	38	34	32
B Non-traffic accidents		221	1	6	1	1	2	6	21	30	26	22	18	8	9	13	9	13	6	12	13	2	2
AE139 Other transport accidents		69	1	4	2	1	2	1	14	6	3	22	4	1	5	3	2	2	2	5	4	3	3
A Submersion of occupant of small boat (830)		215	1	4	1	1	2	6	21	30	26	21	18	8	13	8	13	5	12	13	2	2	2
C Other		65	1	2	1	1	1	1	14	6	3	3	1	5	3	1	1	1	1	1	1	1	1
AE140 Accidental poisoning		4	2	3	1	1	1	1	3	6	6	5	4	3	5	1	2	1	2	1	1	1	1
AE141 Accidental falls		38	4	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
AE142 Accident caused by machinery		16	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AE143 Accident caused by fire and explosion		55	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AE144 Accident caused by combustible material		13	2	3	1	1	2	2	4	3	3	5	2	2	2	5	2	4	3	1	2	1	1
AE145 Accident caused by corrosive liquid, steam and radiation		4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AE146 Accidental drowning and submersion		10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AE147 All other accidental causes		27	3	1	1	1	1	1	2	4	3	2	2	1	2	2	1	2	1	1	2	1	1
AE148 Suicide and self-inflicted injury		63	17	2	1	1	1	1	2	5	4	4	5	4	2	2	3	2	5	1	2	1	1
AE149 Homicide and injury purposely inflicted by other persons (not in war)		8	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO NATURE OF INJURY)		796	29	19	10	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AN138 Fracture of skull		613	19	11	2	5	2	14	19	37	62	56	47	29	44	40	32	36	29	38	34	32	32
AN139 Fracture of spine and trunk		183	10	8	4	3	7	8	14	9	7	63	54	32	55	48	40	32	36	29	38	34	32
		113	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		24	3	1	3	1	1	2	6	3	2	1	1	4	2	3	1	1	2	2	2	1	2
		9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 8—DEATHS, BY CAUSE AND SEX, BY AGE, ALBERTA, 1959 (Continued)

CAUSE OF DEATH (Intermediate List)	SEX	AGE																							
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85 +	Not stated	
AN140 Fracture of limbs	Male	38	...	...	...	...	...	...	1	2	...	...	...	...	1	...	...	...	2	1	2	9	11	...	
AN143 Head injury (excluding fracture)	Female	81	1	...	...	...	...	...	2	5	8	6	9	4	10	4	3	7	5	1	5	11	13		
AN144 Internal injury of chest, abdomen and pelvis	Female	20	1	1	1	...	...	...	3	16	15	15	9	7	8	11	8	11	4	1	6	3	1		
AN145 Laceration and open wounds	Female	26	...	1	1	1	...	...	11	3	...	...	1	2	2	2	2	1	1	1	1	1	1		
AN146 Superficial injury, contusion and crushing with intact skin surface	Female	19	...	1	...	...	...	...	2	3	1	1	1	2	2	2	2	2	...	...	...	...	...		
AN147 Effects of foreign body entering through orifice	Female	3	...	...	...	...	...	...	3	8	...	...	...	2	2	2	...	...	...	...	...	...	...		
AN148 Burns	Female	28	1	1	3	...	...	...	4	3	2	1	4	2	1	...	...	...	...	...	...	...	...		
AN149 Effects of poisons	Female	11	2	1	...	...	...	...	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...		
AN150 All other and unspecified effects of external causes	Female	16	3	1	2	...	...	...	...	12	1	11	5	4	8	7	1	4	4	1	1	1	1		
	Male	103	7	1	...	...	...	...	5	...	...	...	8	4	2	1	9	6	8	2	2	2	2		
	Female	24	3	2	1	...	...	...	3	1	1	1	...	4	5	3	2	1	4	1	1	1	1		

TABLE 9 — DEATHS BY CAUSE AND SEX, BY AGE, EDMONTON, 1959

ANNUAL REPORT, 1959

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CAUSE OF DEATH (Intermediate List)	SEX	AGE														Total								
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years		50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+
		Not stated																						
I. INFECTIVE AND PARASITIC DISEASES	Total	1730	172	6	9	5	5	7	9	15	20	21	30	32	49	58	83	106	117	156	249	215	185	181
	Male	1052	104	3	3	2	1	4	7	10	15	13	24	23	34	40	55	66	68	100	166	135	90	89
	Female	678	68	3	6	3	4	3	2	5	5	8	6	9	15	18	28	40	49	56	83	80	95	92
	Total	17						1	1			1		3	1	2	1	2		4	4	1	1	
	Male	13										1		2	1	1	1	2		4	1	1	1	
	Female	4												1										
	Male	7										1		1	1	1	1	1		1			1	
	Female	3																						
	Male	1																						
	Female	1																						
A 1 Tuberculosis of respiratory system	Male	3																						
A 4 Tuberculosis of bones and joints	Male	1																						
A 5 Tuberculosis, all other forms	Male	1																						
A 9 General paralysis of insane	Male	1																1						
A 10 All other syphilis	Female	2																		2				
A 32 Measles	Female	1						1																
A 39 Hydatid disease	Female	1																						
II. NEOPLASMS	Total	301	2	1	1	3	2	1	1			4	3	6	7	14	24	28	40	31	50	36	27	20
	Male	177	1	1	1	1	2	1	1			2	2	3	3	6	8	9	11	19	10	15	10	8
	Female	124	1			2						2	1	3				3	1		1	2	1	1
A 44 Malignant neoplasm of buccal cavity and pharynx	Male	8						1																
A 45 Malignant neoplasm of oesophagus	Female	4																	1	2		1		
A 46 Malignant neoplasm of stomach	Male	26										1		1			1	2	4	5		6	4	
A 47 Malignant neoplasm of intestine, except rectum	Female	13															2	1	2	1	3	2	1	1
A 48 Malignant neoplasm of rectum	Female	16															1	1	2	2	2	2	1	1
	Male	8											1				1	1	1	1	2	2	1	1





[illegible]



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AEI39	Other transport accidents	Male	Female	13
A	Submersion of occupant of small boat (856)	2	8	10
C	Other	2	2	4
AEI40	Accidental poisoning	2	3	5
AEI41	Accidental falls	15	3	18
AEI42	Accident caused by machinery	6	1	7
AEI43	Accident caused by fire and explosion of combustible material	2	2	4
AEI44	Accident caused by hot substance, corrosive liquid, steam, and radiation	1	1	2
AEI45	Accident caused by firearm	1	1	2
AEI46	Accidental drowning and submersion	2	1	3
AEI47	All other accidental causes	8	1	9
AEI48	Suicide and self-inflicted injury	20	4	24
AEI49	Homicide and injury purposely inflicted by other persons (not in war)	2	1	3
Total		152	3	155
AEI50	Accidents, poisonings and violence (classification according to nature of injury)	135	2	137
AEI51	Fracture of skull	22	1	23
AEI52	Fracture of spine and trunk	5	4	9
AEI53	Fracture of limbs	10	1	11
AEI54	Head injury (excluding fracture)	16	8	24
AEI55	Internal injury of chest, abdomen, and pavis	27	1	28
AEI56	Laceration and open wounds	6	1	7
AEI57	Superficial injury, contusion and crushing with intact skin surface	2	1	3
AEI58	Effects of foreign body entering through orifice	1	1	2
AEI59	Burns	2	4	6
AEI60	Effects of poisons	10	2	12
AEI61	All other and unspecified effects of external causes	16	5	21





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TABLE 11 — DEATHS, BY CAUSE AND SEX, BY MARITAL STATUS AND AGE AND MONTH OF DEATH, ALBERTA, 1959

CAUSE OF DEATH (Intermediate List)	SEX	MARITAL STATUS										MONTHS															
		Single					Married					Widowed		Residual	January	February	March	April	May	June	July	August	September	October	November	December	
		AGE																									
		15-24 years	25-44 years	45-64 years	65 +	15-24 years	25-44 years	45-64 years	65 +	15-24 years	25-44 years	45-64 years	65 +														
		Under 15 years																									Total
I. INFECTIVE AND PARASITIC DISEASES	Total	8481	1191	147	145	243	524	30	395	1281	2265	5	164	1968	123	693	888	733	782	743	674	692	649	658	700	734	735
	Male	5382	698	114	119	203	457	15	264	864	1657	1	71	821	98	438	432	447	521	487	443	422	424	396	444	469	459
	Female	3099	493	33	26	40	67	15	131	417	608	4	93	1147	25	255	256	286	261	256	231	270	225	262	256	265	276
	Total	117	35	5	5	5	7	1	11	17	16	...	2	10	3	6	5	9	12	9	11	8	8	22	11	7	
	Male	78	20	4	4	5	6	1	3	13	13	...	7	7	2	3	4	4	4	9	5	8	7	4	8	12	9
	Female	39	15	1	1	1	1	...	8	4	3	...	2	3	1	3	1	5	3	4	1	4	1	4	10	2	2
	Male	27	...	1	4	3	1	...	1	9	5	...	...	3	...	2	2	2	2	2	2	1	2	3	5	3	1
	Female	10	1	1	...	...	...	...	4	3	1	...	...	2	...	1	1	...	...	...	...	...	...	...	2	1	1
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	



A 51 Malignant neoplasm of breast	Male	102	1	1	2	3	9	35	14	1	5	30	4	9	10	6	11	11	1	7	5	1	8	11	8	1	2	
A 52 Malignant neoplasm of cervix uteri	Female	36	1	1	1	1	1	1	1	1	2	4	5	3	3	2	4	4	4	2	10	1	3	11	3	1	2	
A 53 Malignant neoplasm of unspecified parts of uterus	Female	82	1	1	1	1	1	1	1	1	1	2	19	2	7	2	3	6	1	9	10	4	2	7	6	1	2	
A 54 Malignant neoplasm of prostate	Male	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	2	
A 55 Malignant neoplasm of skin	Female	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	2
A 56 Malignant neoplasm of bone and connective tissue	Male	14	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	2
A 57 Malignant neoplasm of all other and unspecified sites	Female	218	9	1	3	7	13	51	79	1	13	32	32	13	19	10	26	24	22	17	12	13	18	19	20	19	13	19
A Other digestive organs	Female	156	5	2	4	4	5	50	29	1	13	47	10	16	9	13	11	11	9	14	12	13	18	13	13	13	10	10
A 155-159	Male	91	2	1	1	1	2	35	9	1	5	15	2	6	3	7	3	5	2	3	1	3	5	2	2	7	7	7
B Other respiratory organs	Female	37	1	1	1	1	1	7	9	1	5	14	—	4	4	1	1	2	3	1	1	3	3	2	1	1	1	1
(160, 164, 165)	Male	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
C Urinary organs	Female	57	2	1	4	3	2	11	26	1	1	9	2	7	1	6	7	1	1	5	3	3	2	2	4	4	3	3
(180, 181)	Male	29	2	1	1	1	1	8	10	2	1	1	1	4	5	1	2	1	2	2	1	2	1	1	1	1	1	1
D Brain and other parts of nervous system (193)	Female	26	2	1	1	1	1	1	6	1	1	1	1	5	6	5	3	7	3	2	8	7	13	9	4	1	1	1
E Other	Male	41	3	1	2	3	2	4	16	1	1	7	23	1	4	1	3	5	3	5	5	6	5	4	2	1	1	1
A 58 Leukaemia and aleukaemia	Female	80	13	4	4	5	6	8	11	2	1	22	2	4	4	1	2	2	4	1	3	3	1	2	1	1	1	1
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	Male	38	10	1	2	1	3	15	13	1	1	2	2	1	2	6	2	8	1	3	1	3	1	2	1	1	1	1
A Hodgkin's disease (201)	Female	12	1	1	1	1	1	3	5	3	1	3	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1
A 60 Benign neoplasms and neoplasms of unspecified nature	Male	26	1	1	1	1	1	1	10	10	2	2	2	2	2	1	2	5	2	3	1	4	2	1	1	1	1	1
B Other	Female	13	1	1	1	1	1	6	3	6	3	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
A 61 Nontoxic goitre	Female	72	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1
A 62 Thyrotoxicosis with or without goitre	Male	64	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 63 Diabetes mellitus	Female	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 64 Avitaminosis and other deficiency states	Male	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 65 Anaemias	Female	32	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases	Female	19	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

### III. IV. ALLERGIC DISORDERS AND ENDOCRINE METABOLIC AND BLOOD DISEASES



A 82 Other diseases of heart	Male	87	5	4	12	1	2	9	32	1	19	3	7	8	5	10	7	8	9	5	4	7	1	6	3
A 83 Hypertension with heart disease	Female	58	1	2	2	4	1	6	18	...	25	4	4	4	5	10	1	4	6	12	12	2	1	6	3
A 84 Hypertension without mention of heart	Male	80	...	1	1	1	1	1	19	...	17	7	7	7	9	7	6	4	6	12	12	2	13	6	
A 85 Diseases of arteries	Female	34	...	1	16	...	3	9	13	...	48	8	8	8	10	10	2	5	12	12	2	2	4	5	
A 86 Other diseases of circulatory system	Male	105	...	1	2	...	1	7	51	...	25	3	6	4	4	7	6	4	4	4	2	1	2	4	
	Female	57	...	1	2	...	3	1	10	...	34	5	4	4	4	1	2	1	2	2	2	2	1	1	
	Female	24	...	1	1	...	3	1	2	...	6	1	3	1	1	1	1	1	2	2	2	2	1	1	
	Female	15	...	1	1	...	3	1	2	...	6	1	3	1	1	1	1	1	2	2	2	2	1	1	
Total		566	165	5	14	44	12	35	138	...	133	7	51	58	76	57	46	35	29	32	35	51	45	45	
Male		376	96	3	12	42	6	30	116	...	5	35	34	54	43	35	22	19	22	19	31	30	15	15	
Female		189	69	2	2	2	6	5	22	...	3	73	2	16	17	25	22	14	11	13	10	16	20	15	
A 87 Acute upper respiratory infections		7	6	...	...	...	1	1	...	...	...	2	1	3	1	1	...	2	...	...	1	1	...	...	
A 88 Influenza		5	4	...	...	...	2	8	...	...	2	9	1	2	4	5	1	1	2	1	1	1	2	4	
A 89 Lobar pneumonia		20	12	1	1	3	1	4	3	...	9	4	3	3	1	3	1	1	2	1	1	1	2	4	
A 90 Bronchopneumonia		16	11	2	4	18	1	6	47	...	1	30	13	14	13	22	16	14	9	10	8	7	5	11	
A 91 Primary atypical, other and unspecified pneumonia		144	34	4	1	7	1	2	8	...	11	31	7	9	7	18	3	3	4	3	4	3	2	3	
A 92 Acute bronchitis		76	26	1	3	7	2	2	6	...	1	5	2	6	3	4	1	1	1	1	1	1	1	2	
A 93 Bronchitis, chronic and unqualified		36	13	1	1	...	1	1	2	...	17	3	1	1	2	2	2	2	1	1	1	1	1	2	
A 94 Hypertrophy of tonsils and adenoids		12	11	1	1	3	1	4	12	...	9	2	5	3	1	7	7	4	1	2	1	2	1	2	
A 95 Empyema and abscess of lung		9	9	1	1	1	1	1	1	...	1	2	1	1	1	1	1	1	1	1	1	1	1	1	
A 96 Pleurisy		3	3	1	1	1	1	1	1	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	
A 97 All other respiratory diseases		4	1	2	8	...	2	13	40	...	9	4	1	2	7	8	7	9	4	2	2	6	7		
		76	1	1	1	...	1	1	4	...	14	1	2	1	3	5	3	3	4	2	2	3	4		
Total		302	60	8	17	1	17	49	81	...	53	4	26	25	21	18	28	38	23	23	24	26	29		
Male		178	30	2	7	17	5	31	55	...	24	13	20	12	9	18	18	18	14	16	19	16	19		
Female		124	30	2	1	1	12	18	26	...	29	13	5	9	12	8	10	20	8	9	10	10	10		
A 99 Ulcer of stomach		17	...	3	2	...	3	2	6	...	2	1	2	1	2	1	2	1	2	1	3	2	1	1	
A100 Ulcer of duodenum		5	...	2	2	...	2	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	
A101 Gastritis and duodenitis		21	...	2	2	...	2	4	8	...	3	3	3	2	1	2	2	1	3	1	1	1	1	2	
A102 Appendicitis		3	...	1	1	...	1	1	1	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	
A103 Intestinal obstruction and hernia		2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	...	...	...	...	...	
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn		5	1	3	1	...	3	1	1	...	1	1	1	1	1	2	2	1	1	1	1	1	1	1	
		6	3	7	1	...	1	5	11	...	1	4	1	3	5	1	2	4	3	1	1	1	1	1	
		34	4	1	7	...	2	3	5	...	8	2	2	2	2	2	3	6	2	2	2	2	2	2	
		22	20	1	1	...	1	1	3	...	2	2	2	2	2	2	2	6	2	2	2	2	2	2	
		27	21	...	...	...	1	1	3	...	2	2	2	2	2	2	3	6	2	2	2	2	2	2	





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## BUREAU OF VITAL STATISTICS

TABLE 12: INFANT DEATHS AND HOSPITAL INFANT DEATHS BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1959

CENSUS DIVISIONS	Total Infant Deaths				Infant Deaths in Hospitals			
	Total by Occurrence	Total by Residence	By Occurrence Residence Elsewhere	By Residence; Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence Residence Elsewhere	By Residence; Occurrence Elsewhere
<b>ALBERTA</b> .....	<b>926</b>	<b>922</b>	<b>17</b>	<b>13</b>	<b>784</b>	<b>778</b>	<b>16</b>	<b>10</b>
Division No. 1 .....	29	30	1	2	25	26	1	2
Division No. 2 .....	48	43	5	.....	41	36	5	.....
Division No. 3 .....	23	32	.....	9	21	30	.....	9
Division No. 4 .....	13	9	5	1	12	9	4	1
Division No. 5 .....	15	19	1	5	11	16	.....	5
Division No. 6 .....	227	223	10	6	201	197	10	4
Division No. 7 .....	23	27	4	3	21	25	4	4
Division No. 8 .....	38	42	2	6	30	33	3	4
Division No. 9 .....	11	13	3	5	8	12	4	5
Division No. 10 .....	27	31	6	10	24	27	6	9
Division No. 11 .....	288	243	54	9	260	216	51	7
Division No. 12 .....	77	82	6	11	52	56	5	9
Division No. 13 .....	22	30	4	12	18	23	3	10
Division No. 14 .....	12	22	.....	10	8	16	.....	8
Division No. 15 .....	73	76	4	7	52	55	4	7

TABLE 13: INFANT DEATHS AND HOSPITAL INFANT DEATHS BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1959

CITY, TOWN OR VILLAGE	Total Infant Deaths				Infant Deaths in Hospitals			
	Total by Occurrence	Total by Residence	By Occurrence; Residence Elsewhere	By Occurrence; Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence; Residence Elsewhere	By Occurrence; Occurrence Elsewhere
Athabasca .....	9	4	5	.....	7	3	4	.....
Barrhead .....	7	3	4	.....	7	3	4	.....
Beverly .....	.....	10	.....	10	.....	9	.....	9
Blairmore .....	1	1	1	1	1	1	1	1
Bonnyville .....	7	4	3	.....	5	2	3	.....
Bow Island .....	.....	.....	.....	.....	.....	.....	.....	.....
Bowness .....	3	8	.....	5	.....	5	.....	5
Brooks .....	4	3	1	.....	3	2	1	.....
Calgary .....	204	176	32	4	188	161	31	4
Camrose .....	5	1	5	.....	6	1	5	.....
Cardston .....	4	5	2	3	4	5	2	3
Clareholm .....	3	2	1	.....	3	2	1	.....
Coaldale .....	.....	2	.....	2	.....	2	.....	2
Cold Lake .....	9	2	5	1	9	2	8	1
Coleman .....	.....	.....	.....	.....	.....	.....	.....	.....
Devon .....	.....	.....	.....	.....	.....	.....	.....	.....
Didsbury .....	1	1	1	.....	1	1	.....	.....
Drayton Valley .....	3	5	1	3	3	5	1	3
Drumheller .....	8	5	3	.....	7	4	3	.....
Edmonton .....	271	172	102	3	253	155	99	1
Edson .....	7	3	6	2	7	2	6	1
Fairview .....	2	1	2	1	2	1	2	1
Forest Lawn .....	2	7	.....	5	2	5	.....	5
Fort Macleod .....	2	1	1	.....	2	1	1	.....
Fort Saskatchewan .....	.....	4	.....	4	.....	4	.....	4
Grande Prairie .....	14	10	4	.....	14	10	4	.....
Hanna .....	11	7	4	.....	11	7	4	.....
High Prairie .....	15	5	10	.....	15	5	10	.....
High River .....	4	2	2	.....	3	1	2	.....
Innisfail .....	3	3	2	2	3	3	2	2
Jasper Place .....	2	13	.....	11	.....	11	.....	11
Lacombe .....	4	1	4	1	4	1	4	1
Leduc .....	.....	.....	.....	.....	.....	.....	.....	.....
Lethbridge .....	26	17	9	.....	26	17	9	.....
Lloydminster .....	.....	1	.....	1	.....	1	.....	1
Magrath .....	1	2	.....	1	1	2	.....	1
McLennan .....	4	.....	4	.....	3	.....	3	.....
McMurray .....	5	5	1	1	4	4	1	1
Medicine Hat .....	26	15	11	.....	25	15	10	.....
Nanton .....	.....	3	.....	3	.....	3	.....	3
Olds .....	6	3	3	.....	6	3	3	.....
Peace River .....	5	7	2	4	5	7	2	4
Pincher Creek .....	11	9	3	1	10	8	2	.....
Ponoka .....	2	1	1	.....	2	1	1	.....
Raymond .....	6	3	3	.....	6	3	3	.....
Redcliff .....	.....	1	.....	1	.....	1	.....	1
Red Deer .....	15	11	6	2	11	7	5	1
Redwater .....	.....	1	.....	1	.....	1	.....	1
Rocky Mountain House .....	4	5	.....	1	4	5	.....	1
St. Albert .....	1	2	.....	1	.....	1	.....	1
St. Paul .....	12	2	10	.....	11	2	9	.....
Stettler .....	4	1	3	.....	4	1	3	.....
Stony Plain .....	1	2	.....	1	.....	1	.....	1
Sylvan Lake .....	.....	1	.....	1	.....	1	.....	1
Taber .....	5	3	2	.....	5	3	2	.....
Three Hills .....	.....	.....	.....	.....	.....	.....	.....	.....
Vegreville .....	2	2	.....	2	2	2	.....	.....
Vermilion .....	3	1	2	.....	3	1	2	.....
Vulcan .....	1	1	.....	1	1	1	.....	.....
Wainwright .....	7	7	3	3	6	7	2	3
Westlock .....	1	.....	1	.....	1	.....	1	.....
Wetaskiwin .....	4	2	3	1	4	2	3	1











TABLE 16—DEATHS AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES, CANADA, 1959

Int. abbrev. List. No.	Canada		Nfld.	P.E.I.	N.S.	N.B.	Quebec	Ontario	Manitoba	Sask.	Alberta	B.C.	Yukon	N.W.T.
	1958	1959												
B 1	883	834	44	3	24	36	423	152	35	22	37	48	1	9
B 2	144	125	10	1	4	8	62	14	6	5	7	6	1	2
B 3	177	167	5	...	14	3	44	47	9	11	19	15	...	...
B 4	3	3	...	...	...	...	2	1	...	...	...	...	...	...
B 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B 6	25	20	...	...	...	...	...	...	...	...	...	...	...	...
B 7	6	26	2	1	2	1	8	6	4	2	1	2	...	1
B 8	7	...	...	...	...	...	...	...	...	...	...	...	...	...
B 9	40	46	...	...	2	3	24	11	1	...	...	...	...	...
B 10	68	52	3	...	1	6	16	17	3	1	2	3	...	...
B 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B 12	26	182	12	1	...	7	106	23	2	3	12	14	...	2
B 13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B 14	93	84	2	...	3	4	41	24	3	2	3	2	...	...
B 15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B 16	373	344	7	1	15	12	90	101	28	23	25	38	...	4
B 17	21,795	22,243	464	159	1,000	701	5,858	7,959	1,254	1,121	1,357	2,343	13	14
B 18	255	254	12	2	12	3	70	82	58	17	18	27	...	...
B 19	960	1,002	16	6	58	19	245	342	58	58	83	13	...	1
B 20	294	333	...	...	11	19	99	115	14	12	33	72	...	2
B 21	1,869	1,988	27	4	98	63	672	617	95	132	136	143	1	...
B 22	398	338	7	2	23	10	108	112	13	16	19	28	...	...
B 23	15,122	15,650	395	158	837	539	2,982	6,571	807	752	952	1,646	8	3
B 24	221	186	8	...	...	3	73	60	6	7	15	...	...	3
B 25	80	69	2	1	2	2	33	9	...	...	...	...	...	...
B 26	1,402	1,437	42	4	56	40	361	489	71	58	114	171	1	...
B 27	38,853	40,970	503	266	1,797	1,315	9,064	16,923	2,558	1,918	2,158	4,746	8	14
B 28	2,044	2,150	85	10	130	106	612	589	132	156	145	191	...	4
B 29	3,710	3,687	88	28	188	128	1,331	1,155	135	160	164	310	...	...
B 30	1,162	1,089	43	19	44	23	445	254	45	61	65	90	...	...
B 31	760	1,271	46	26	128	58	529	243	86	83	96	29	1	6
B 32	5,190	5,619	174	48	253	230	1,149	1,966	428	324	346	651	8	32
B 33	854	883	26	12	39	26	194	342	55	51	61	74	1	2
B 34	856	857	9	3	42	19	172	344	52	55	46	114	1	...
B 35	191	176	2	2	9	3	54	62	9	6	11	18	...	...
B 36	860	881	13	6	44	24	253	307	36	46	56	94	...	2
	1,070	995	15	4	36	30	380	256	57	63	58	86	1	9



B37	Cirrhosis of liver	965	1,015	15	6	22	14	312	430	46	30	44	93	3	...
B38	Nephritis and nephrosis	1,844	1,695	30	8	57	58	922	380	55	58	49	78	...	...
B39	Hyperplasia of prostate	554	556	10	4	31	26	139	188	29	48	19	60	2	...
B40	Complications of pregnancy, childbirth and the puerperium	263	263	12	...	8	6	104	73	14	10	14	17	...	...
B41	Congenital malformations	2,830	2,767	90	17	126	93	929	862	117	128	188	211	2	...
B42	Birth injuries, postnatal asphyxia and atelectasis	2,931	2,936	104	6	125	90	973	907	151	156	199	217	1	...
B43	Infections of the newborn	710	623	23	2	26	23	263	128	30	24	49	44	...	...
B44	Other diseases peculiar to early infancy and immaturity unqualified	3,923	3,894	146	33	174	165	1,316	1,183	123	166	274	280	3	...
B45	Senility without mention of psychosis, ill-defined and unknown causes	1,526	1,536	201	14	57	118	387	210	73	66	278	81	...	...
B46	All other diseases	10,448	11,019	251	97	535	330	2,981	3,675	631	679	688	1,114	13	...
B47	Motor vehicle accidents	3,517	3,687	44	32	132	128	1,168	1,250	156	162	290	312	4	...
	Traffic accidents	3,445	3,599	42	31	125	123	1,153	1,221	154	155	280	302	4	...
	Nontraffic accidents	72	88	2	1	7	5	15	29	2	7	10	10	...	...
BE48	All other accidents	5,640	5,752	198	26	248	243	1,380	1,961	279	282	369	717	16	...
BE49	Suicide and self-inflicted injury	1,271	1,287	14	3	30	32	255	519	65	68	117	179	1	...
BE50	Homicide and operations of war	203	178	1	...	4	2	44	60	4	12	20	31	...	...
	All causes	135,201	139,913	3,179	1,007	6,371	4,747	36,390	50,600	7,421	7,003	8,431	14,336	89	289

\*Includes Hodgkin's disease, leukaemia and aleukaemia.



TABLE 17 — DEATH RATES PER 100,000 POPULATION AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES, BY PROVINCES, 1959

Int. abbrev. List. No.	CAUSE OF DEATH	Canada		Nfld.	P.E.I.	N.S.	N.B.	Quebec	Ontario	Manitoba	Sask.	Alberta	B.C.	Yukon	N.W.T.
		1958	1959												
B 1	Tuberculosis of respiratory system	5.2	4.8	9.8	2.9	3.4	6.1	8.5	2.6	4.0	2.4	3.0	3.1	7.7	42.9
B 2	Tuberculosis, other forms	0.8	0.7	2.2	1.0	0.6	1.4	1.2	0.2	0.7	0.6	0.6	0.4	.....	9.5
B 3	Syphilis and its sequelae	1.0	1.0	1.1	.....	2.0	0.5	0.9	0.8	1.0	1.2	1.5	1.0	.....	.....
B 4	Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 5	Choloid fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 6	Dysentery, all forms	0.1	0.1	.....	1.0	.....	0.2	.....	0.1	0.5	0.2	0.2	0.1	.....	4.8
B 7	Scarlet fever and streptococcal sore throat	.....	.....	0.4	.....	0.3	.....	0.2	0.1	0.1	0.1	0.4	0.1	.....	.....
B 8	Diphtheria	.....	.....	.....	.....	0.3	0.5	0.5	0.2	0.1	.....	0.4	.....	.....	.....
B 9	Whooping cough	0.2	0.3	.....	.....	0.3	0.5	0.5	0.2	0.1	0.1	0.4	0.1	.....	.....
B 10	Meningococcal infections	0.4	0.3	0.7	.....	0.1	1.0	0.3	0.3	0.3	0.1	0.2	0.2	.....	.....
B 11	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 12	Acute poliomyelitis	0.2	1.0	2.7	1.0	.....	1.2	2.1	0.4	0.2	0.3	1.0	0.9	.....	9.5
B 13	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 14	Measles	0.5	0.5	0.4	.....	0.4	0.7	0.8	0.4	0.3	0.2	0.2	0.1	.....	.....
B 15	Typhus and other rickettsial diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 16	Malaria	2.2	2.0	1.6	1.0	2.1	2.0	1.8	1.7	3.2	2.5	2.0	2.4	.....	19.0
B 17	All other diseases classified as infective and parasitic	127.8	127.5	103.3	155.9	139.7	118.8	117.2	133.7	141.7	124.3	109.2	149.2	100.0	66.7
B 18	All malignant neoplasms*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 19	Hodgkin's disease	1.5	1.5	2.7	2.0	1.7	0.5	1.4	1.2	1.9	1.4	1.4	1.7	.....	4.8
B 20	Leukaemia and aleukaemia	5.6	5.7	3.6	5.9	8.1	3.2	4.9	5.8	6.6	5.9	7.2	7.2	.....	9.5
B 21	Benign and unspecified neoplasms	11.0	11.4	6.0	3.9	13.7	10.7	13.4	10.4	10.7	14.6	10.9	9.1	7.7	.....
B 22	Diabetes mellitus	2.3	1.9	1.6	2.0	3.2	1.7	2.2	1.9	1.5	2.1	1.5	1.6	.....	.....
B 23	Anaemias	88.7	89.7	88.0	154.9	116.9	91.4	59.7	110.4	91.2	83.4	76.6	104.8	61.5	14.3
B 24	Vascular lesions affecting central nervous system	1.3	1.1	1.8	.....	0.6	0.5	1.5	1.0	0.7	0.8	0.6	1.0	.....	14.3
B 25	Nonmeningococcal meningitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 26	Rheumatic fever	8.2	8.2	9.4	1.0	0.3	0.3	0.7	0.2	0.3	1.1	0.2	0.3	.....	.....
B 27	Chronic rheumatic heart disease	27.9	23.9	12.0	260.8	251.0	222.9	181.3	284.3	255.1	212.6	173.6	302.3	61.5	66.7
B 28	Arteriosclerotic and degenerative heart disease	12.0	12.3	18.9	9.8	16.8	18.0	12.2	9.9	14.9	17.3	11.7	12.2	.....	19.0
B 29	Other diseases of heart	21.8	21.1	19.6	27.5	26.3	21.7	26.6	19.4	15.3	17.7	13.2	19.7	.....	.....
B 30	Hypertension with heart disease	6.8	6.2	9.6	18.6	6.1	3.9	8.9	4.1	5.1	6.8	5.2	5.7	.....	.....
B 31	Hypertension without mention of heart	4.5	7.3	10.2	25.5	17.9	9.8	10.6	4.1	9.7	9.2	2.9	1.8	.....	.....
B 32	Influenza	30.4	32.2	38.8	47.1	35.3	39.0	23.0	33.0	48.4	37.0	27.8	41.5	7.7	28.6
B 33	Pneumonia	5.0	5.1	5.8	11.8	5.4	4.4	3.9	5.7	6.2	5.7	4.9	4.7	.....	152.4
B 34	Bronchitis	5.0	4.9	2.0	2.9	5.9	3.2	3.4	5.8	5.9	6.1	3.7	7.3	7.7	9.5
B 35	Ulcer of stomach and duodenum	1.1	1.1	1.0	2.0	1.3	0.5	1.1	1.0	1.0	0.7	0.9	1.1	.....	.....
B 36	Appendicitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 37	Intestinal obstruction and hernia	5.0	5.1	2.9	5.9	6.1	4.1	5.1	5.2	4.1	5.1	4.5	6.0	.....	9.5

B36	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn .....	6.3	5.7	3.3	3.9	5.0	5.1	7.6	4.3	6.4	7.0	4.7	5.5	7.7	42.9
B37	Cirrhosis of liver .....	5.7	5.8	3.3	5.9	3.1	2.4	6.2	7.2	5.2	3.3	3.5	5.9	23.1	....
B38	Nephritis and nephrosis .....	10.8	9.7	6.7	7.8	8.0	9.8	18.4	6.4	6.2	6.4	3.9	5.0	15.4	....
B39	Hyperplasia of prostate .....	3.2	3.2	2.7	3.9	4.3	4.4	2.8	3.2	3.3	5.3	1.5	3.8	15.4	....
B40	Complications of pregnancy, childbirth and the puerperium .....	1.5	1.5	2.7	1.1	1.1	1.0	2.1	1.2	1.6	1.1	1.1	1.1	1.1	23.8
B41	Congenital malformations .....	16.6	15.9	20.0	16.7	17.6	15.8	18.6	14.5	13.2	14.2	15.1	13.4	15.4	19.0
B42	Birth injuries, postnatal asphyxia and atelectasis .....	17.2	16.8	23.2	5.9	17.5	15.3	19.5	15.2	17.1	17.3	16.0	13.8	7.7	33.3
B43	Infections of the newborn .....	4.2	3.6	5.1	2.0	3.6	3.9	5.3	2.2	3.4	2.7	3.9	2.8	2.8	52.4
B44	Other diseases peculiar to early infancy and immaturity unqualified .....	23.0	22.3	32.5	32.4	24.3	28.0	26.3	19.9	13.9	18.4	22.0	5.2	23.1	147.6
B45	Senility without mention of psychosis, ill-defined and unknown causes .....	9.0	8.8	44.8	13.7	8.0	20.0	7.7	3.5	8.2	7.3	22.4	71.0	100.0	119.0
B46	All other diseases .....	61.3	63.2	55.9	95.1	74.7	55.9	59.6	61.7	71.3	75.3	55.3	19.9	30.8	42.9
BE47	Motor vehicle accidents .....	20.6	21.1	9.8	31.4	18.4	21.7	23.4	21.0	17.4	18.0	23.3	19.2	30.8	42.9
	Traffic accidents .....	20.2	20.6	9.4	30.4	17.5	20.8	23.1	20.5	17.4	17.2	22.5	19.2	30.8	42.9
	Nontraffic accidents .....	0.4	0.5	0.4	1.0	1.0	0.8	0.3	0.5	0.2	0.8	0.8	0.6	0.6	....
BE48	All other accidents .....	33.1	33.0	44.1	25.5	34.6	41.2	27.6	32.9	31.5	31.3	29.7	45.7	123.1	157.1
BE49	Suicide and self-inflicted injury .....	7.5	7.4	3.1	2.9	4.2	5.4	5.1	8.7	7.3	7.5	9.4	11.4	7.7	19.0
BE50	Homicide and operations of war .....	1.2	1.0	0.2	0.6	0.6	0.3	0.9	1.0	0.5	1.3	1.6	2.0	....	....
	All causes .....	793.1	802.2	708.0	987.3	889.8	804.6	727.9	850.1	838.5	776.4	682.3	913.1	684.6	1376.2

■ Includes Hodgkin's disease, leukaemia and aleukaemia.

† Less than 0.1 per 100,000 population.



TABLE 19 — DEATHS OF INDIANS BY CAUSE AND SEX, BY AGE, ALBERTA, 1959

CAUSE OF DEATH (Intermediate List)	SEX	AGE														Total									
		Under 1 year	1 years	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years		50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85 +	Not stated
I. INFECTIVE AND PARASITIC DISEASES	Total	271	110	8	4	3	1	2	3	6	11	7	8	1	10	6	11	5	10	10	19	16	17	85 +	
	Male	157	70	3	2	1	1	1	2	6	11	5	5	1	4	5	7	3	7	8	11	7	8		
	Female	114	40	5	2	2	...	...	...	...	...	2	3	1	6	1	4	2	3	2	8	9	9		
	Total	21	6	2	2	...	1	1	1	...	3	2	1	...	2	1	1	1	2	...	...	...	...		
	Male	14	5	...	...	...	...	...	...	...	2	1	1	...	1	1	1	1	1	...	...	...	...		
	Female	7	1	2	...	...	1	...	...	1	1	1	...	...	2	...	...	...	...	...	...	...	...		
	A 1 Tuberculosis of respiratory system	Male	5	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	
	A 5 Tuberculosis, all other forms	Male	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	A 10 All other syphilis	Male	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	A 16 Dysentery, all forms	Female	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
A 20 Septicaemia and pyaemia	Female	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
A 22 Whooping cough	Male	2	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
A 28 Acute poliomyelitis	Male	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...		
A 29 Acute infectious encephalitis	Female	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
A 32 Measles	Male	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...		
A 43 All other diseases classified as infective and parasitic	Male	2	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...		
II. NEOPLASMS	Total	18	2	...	1	...	...	...	...	...	...	...	...	1	1	1	4	...	3	2	3	3	...		
	Male	9	2	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	2	2	2	1	...		
	Female	9	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	1	...	...		
	A 46 Malignant neoplasm of stomach	Male	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...		
A 51 Malignant neoplasm of breast	Female	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...		
A 52 Malignant neoplasm of cervix uteri	Female	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...		



[illegible]





[illegible]







[illegible]







TABLE 21—SELECTED CAUSES OF INFANT DEATHS OF INDIANS BY SEX AND AGE AT DEATH, ALBERTA, 1959

[illegible]

\*Includes Hodgkin's disease, leukaemia and aleukaemia

TABLE 22—SELECTED CAUSES OF INFANT DEATH OF TREATY INDIANS BY SEX AND AGE AT DEATH, ALBERTA, 1959

Int. List No.	CAUSE OF DEATH (6th Rev.)	Total Under 1 Year		AGE AT DEATH																														
		Total	Male	Female	Total under 28 days		Under 1 day		1 day	2 days	3 days	4 days	5 days	6 days	7-13 days	14-20 days	21-27 days	Total 28 days to 1 year	28 days and under 2 mos.	2 months	3 months	4 months	5 months	6 months	7 months	8 months	9 months	10 months	11 months					
					T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.
					T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.	T.	M.F.
	ALL CAUSES	58	40	18	21	14	7	3	2	1	2																							
056	Whooping cough																																	
085	Measles	1	1	1	1																													
140-205	All malignant neoplasms*	1	1																															
201	Hodgkin's disease	1	1																															
204	Leukaemia and aleukaemia	1	1																															
480-483	Influenza	1	1																															
490-493	Pneumonia (4 weeks and over)	15	11	4																														
500-502	Bronchitis	1	1																															
571	Gastro-enteritis and colitis	8	4	4																														
750-759	Congenital malformations	2	2	2																														
	Injury at birth—	2	2	2																														
760, 761	—With immaturity	2	2	2																														
	Postnatal asphyxia and atelectasis—	2	2	2																														
762	—With immaturity	4	2	2	1	2																												
763	Pneumonia of newborn—	2	2	2																														
	—Without immaturity	2	2	2																														
764	Diarrhoea of newborn—	2	1	1																														
	—Without immaturity	2	1	1																														
771	Haemorrhagic disease of newborn—	2	1	1																														
	—Without immaturity	1	1	1																														
772	Nutritional maladjustment—	1	1	1																														
	—Without immaturity	1	1	1																														
	Ill-defined diseases peculiar to early infancy—	1	1	1																														
773	—With immaturity	1	1	1																														
774-776	Immaturity	1	1	1																														
795	Ill-defined and unknown causes	5	3	2	1	1																												
E921, E922	Inhalation and ingestion of food or other object	4	2	2	1	1																												
E924, E925	Accidental mechanical suffocation	2	2																															
	RESIDUALS	1	1																															
	(Infective and parasitic diseases)	1	1																															
Class IX	(Diseases of digestive system)	1	1																															

\*Includes Hodgkin's disease, leukaemia and aleukaemia.

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TABLE 23A—LIVE BIRTHS OF INDIANS, ALBERTA, BY MONTHS, 1959  
(ALL INDIANS)

	MONTHS												
	Total	January	February	March	April	May	June	July	August	September	October	November	December
Province of Alberta .....	1802	133	137	160	148	151	153	161	145	148	153	154	159

TABLE 23B—LIVE BIRTHS OF INDIANS, ALBERTA, BY MONTHS, 1959  
(TREATY INDIANS)

	MONTHS												
	Total	January	February	March	April	May	June	July	August	September	October	November	December
Province of Alberta .....	1073	74	88	98	107	83	94	90	83	86	89	86	95

TABLE 24—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS) IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1959  
(ALL INDIANS)

PROVINCE	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Alberta .....	1802	927	875	1166	610	556	636	317	319

TABLE 25—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS) IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1959  
(TREATY INDIANS)

PROVINCE	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Alberta .....	1073	561	512	689	370	319	384	191	193

TABLE 26A—LIVE BIRTHS OF INDIANS BY AGES OF PARENTS, ALBERTA, 1959

AGE OF MOTHER (years)	AGE OF FATHER											Total born to married mothers	Born to un- married mothers	Born to all mothers	
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over				Not stated
14 years	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2
15 years	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	9	11
16 years	1	8	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	25	37
17 years	.....	1	15	6	1	1	.....	.....	.....	.....	.....	.....	23	47	70
18 years	.....	2	22	12	1	2	.....	.....	.....	.....	.....	.....	39	56	95
19 years	.....	2	20	20	6	1	.....	.....	.....	.....	.....	.....	49	50	99
20 years	1	31	24	4	1	.....	.....	.....	.....	.....	.....	.....	61	54	115
21 years	.....	17	30	9	3	1	1	1	.....	.....	.....	.....	62	45	107
22 years	.....	20	30	9	1	2	.....	.....	.....	.....	.....	.....	62	37	99
23 years	.....	11	26	16	2	1	.....	1	.....	.....	.....	.....	57	35	92
24 years	.....	10	35	26	3	2	1	1	.....	.....	.....	.....	78	31	109
25 years	.....	5	27	12	5	3	.....	.....	.....	.....	.....	.....	52	35	87
26 years	.....	3	25	22	6	2	1	1	.....	.....	.....	1	61	40	101
27 years	.....	1	23	21	9	.....	1	.....	.....	1	.....	1	57	20	77
28 years	.....	1	15	31	12	3	1	2	1	.....	.....	.....	66	20	86
29 years	.....	.....	7	17	9	4	4	2	.....	.....	.....	.....	43	17	60
30 years	.....	.....	7	20	19	6	2	2	1	.....	1	.....	58	20	78
31 years	.....	1	4	14	11	6	1	1	.....	1	.....	.....	39	14	53
32 years	.....	.....	2	14	10	7	1	3	.....	1	.....	.....	38	7	45
33 years	.....	.....	.....	7	12	9	3	.....	.....	.....	1	.....	32	11	43
34 years	.....	.....	2	10	15	17	5	.....	1	1	.....	.....	51	9	60
35 years	.....	.....	.....	1	15	8	2	4	1	.....	.....	.....	31	5	36
36 years	.....	.....	.....	.....	4	11	5	2	2	1	.....	.....	25	9	34
37 years	.....	.....	1	4	10	5	7	3	3	1	2	.....	36	7	43
38 years	.....	.....	.....	2	7	10	7	3	1	.....	1	.....	31	7	38
39 years	.....	.....	.....	1	5	9	8	2	5	.....	1	.....	31	6	37
40 years	.....	.....	.....	1	2	8	8	3	.....	1	1	.....	23	4	27
41 years	.....	.....	.....	.....	1	1	2	3	.....	1	.....	.....	8	7	15
42 years	.....	.....	.....	.....	2	2	3	2	4	.....	.....	.....	13	3	16
43 years	.....	.....	.....	.....	.....	.....	4	2	1	.....	.....	.....	7	2	9
44 years	.....	.....	.....	.....	.....	3	2	3	1	.....	.....	.....	9	2	11
45 years	.....	.....	.....	.....	1	.....	1	1	.....	.....	.....	.....	3	.....	3
46 years	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	1
47 years	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	1	.....	1
48 years	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	2	.....	2
Not stated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	1	3
Total Fathers	7	168	299	248	169	121	71	42	23	7	6	5	1166	636	1802



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TABLE 26B: LIVE BIRTHS OF TREATY INDIANS BY AGES OF PARENTS,  
ALBERTA, 1959

AGE OF MOTHER (years)	AGE OF FATHER											Total born to married mothers	Born to un- married mothers	Born to all mothers
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over	Not stated		
14 years	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
15 years	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	8
16 years	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	16
17 years	1	8	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	45
18 years	2	12	6	.....	1	.....	.....	.....	.....	.....	.....	.....	21	52
19 years	1	13	12	2	1	.....	.....	.....	.....	.....	.....	.....	29	62
20 years	1	22	12	3	.....	.....	.....	.....	.....	.....	.....	.....	38	68
21 years	.....	12	17	4	3	1	1	1	.....	.....	.....	.....	39	62
22 years	.....	17	16	5	.....	1	.....	.....	.....	.....	.....	.....	39	67
23 years	.....	4	13	7	1	.....	.....	1	.....	.....	.....	.....	26	47
24 years	.....	6	21	15	1	1	1	1	.....	.....	.....	.....	46	71
25 years	.....	3	16	5	4	.....	.....	.....	.....	.....	.....	.....	28	46
26 years	.....	2	13	13	4	1	1	1	.....	.....	.....	1	36	61
27 years	.....	1	10	15	5	.....	.....	.....	.....	.....	.....	.....	31	42
28 years	.....	1	7	20	6	2	1	1	.....	.....	.....	.....	38	51
29 years	.....	.....	5	7	5	4	2	2	.....	.....	.....	.....	25	34
30 years	.....	.....	5	14	12	3	1	.....	1	.....	.....	.....	36	49
31 years	.....	.....	1	11	9	3	.....	1	.....	.....	.....	.....	25	31
32 years	.....	.....	2	8	8	3	1	2	.....	1	.....	.....	25	29
33 years	.....	.....	.....	4	6	6	1	.....	.....	.....	.....	1	18	24
34 years	.....	.....	2	8	12	7	3	.....	.....	.....	.....	.....	34	39
35 years	.....	.....	.....	12	6	.....	.....	3	1	1	.....	.....	22	26
36 years	.....	.....	.....	.....	6	.....	.....	2	1	1	.....	.....	13	19
37 years	.....	.....	.....	.....	7	1	3	2	1	1	.....	.....	20	23
38 years	.....	.....	1	2	4	8	3	1	1	1	.....	.....	18	22
39 years	.....	.....	.....	.....	3	6	5	1	4	.....	.....	.....	19	24
40 years	.....	.....	.....	1	1	4	6	.....	.....	.....	1	.....	14	15
41 years	.....	.....	.....	.....	1	1	1	3	.....	.....	.....	.....	6	9
42 years	.....	.....	.....	.....	1	1	.....	.....	4	.....	.....	.....	7	10
43 years	.....	.....	.....	.....	.....	.....	2	1	1	.....	.....	.....	4	5
44 years	.....	.....	.....	.....	.....	2	2	2	.....	.....	.....	.....	6	8
45 years	.....	.....	.....	.....	1	.....	1	1	.....	.....	.....	.....	3	3
46 years	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
47 years	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1
48 years	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	2	2
Not stated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
Total Fathers	5	105	165	144	110	67	38	27	17	4	4	3	689	1073



TABLE 28: LIVE BIRTHS AND LIVE BIRTHS IN HOSPITAL BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1959

CENSUS DIVISIONS	TOTAL BIRTHS				BIRTHS IN HOSPITALS			
	Total by Occurrence	Total by Residence	By Occurrence; Residence Elsewhere	By Residence; Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence; Residence Elsewhere	By Residence; Occurrence Elsewhere
<b>ALBERTA</b> .....	<b>37,996</b>	<b>38,080</b>	<b>309</b>	<b>393</b>	<b>37,224</b>	<b>37,305</b>	<b>309</b>	<b>390</b>
Division No. 1 ....	957	988	40	71	946	977	40	71
Division No. 2 ....	2,332	2,183	212	63	2,285	2,136	212	63
Division No. 3 ....	860	917	59	116	821	878	59	116
Division No. 4 ....	403	412	51	60	393	402	51	60
Division No. 5 ....	753	953	60	260	719	931	47	259
Division No. 6 ....	9,386	9,144	415	173	9,361	9,106	414	159
Division No. 7 ....	1,065	1,113	88	136	1,056	1,104	88	136
Division No. 8 ....	2,099	2,097	158	156	2,084	2,081	158	155
Division No. 9 ....	484	433	133	82	467	416	133	82
Division No. 10 ....	1,366	1,580	146	360	1,357	1,570	146	359
Division No. 11 ....	13,068	12,483	860	275	13,033	12,447	858	272
Division No. 12 ....	1,635	1,647	103	115	1,398	1,409	103	114
Division No. 13 ....	940	1,077	129	266	927	1,065	128	266
Division No. 14 ....	288	580	11	303	271	563	10	302
Division No. 15 ....	2,360	2,473	38	151	2,106	2,220	36	150

TABLE 29: LIVE BIRTHS AND LIVE BIRTHS IN HOSPITAL BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1959

CITY, TOWN OR VILLAGE	Total Live Births				Live Births in Hospitals			
	Total by Occurrence	Total by Residence	By Occurrence; Residence Elsewhere	By Residence; Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence; Residence Elsewhere	By Residence; Occurrence Elsewhere
Athabasca .....	210	56	160	6	210	56	160	6
Barrhead .....	247	58	193	4	247	58	193	4
Beverly .....	2	462	.....	460	1	460	.....	459
Blairmore .....	12	35	9	32	12	35	9	32
Bonnyville .....	193	65	135	7	192	62	135	5
Bow Island .....	83	23	62	2	82	23	61	2
Bowness .....	3	346	.....	343	.....	342	.....	342
Brooks .....	252	82	171	1	252	82	171	1
Calgary .....	8,708	7,259	1,564	115	8,704	7,254	1,563	113
Camrose .....	412	170	255	13	412	170	255	13
Cardston .....	184	78	115	9	184	78	115	9
Claresholm .....	109	51	61	3	109	51	61	3
Coaldale .....	93	69	50	26	93	69	50	26
Cold Lake .....	211	64	156	9	209	62	154	7
Coleman .....	5	32	1	28	5	32	1	28
Devon .....	28	33	8	13	28	33	8	13
Didsbury .....	143	34	112	3	142	34	111	3
Drayton Valley .....	239	205	106	72	238	204	106	72
Drumheller .....	302	124	186	8	302	124	186	8
Edmonton .....	12,443	8,604	3,929	90	12,436	8,597	3,928	89
Edson .....	251	155	118	22	251	155	118	22
Fairview .....	175	44	135	4	175	44	135	4
Forest Lawn .....	1	270	.....	269	.....	269	.....	269
Fort Macleod .....	118	80	45	7	118	80	45	7
Fort Saskatchewan .....	4	105	4	105	1	105	1	105
Grande Prairie .....	660	304	363	7	660	304	363	7
Hanna .....	178	87	93	2	177	87	92	2
High Prairie .....	289	83	212	6	288	82	212	6
High River .....	255	46	215	6	255	46	215	6
Innisfail .....	177	67	121	11	177	67	121	11
Jasper Place .....	3	1,099	.....	1,096	3	1,099	.....	1,096
Lacombe .....	260	95	172	7	260	95	172	7
Leduc .....	1	63	1	63	.....	63	.....	63
Lethbridge .....	1,426	913	530	17	1,424	911	530	17
Lloydminster .....	1	108	.....	107	.....	107	.....	107
Magrath .....	71	36	41	6	69	34	41	6
McLennan .....	215	47	172	4	215	47	172	4
McMurray .....	59	30	36	7	59	30	36	7
Medicine Hat .....	861	602	272	13	861	602	272	13
Nanton .....	1	29	.....	28	.....	28	.....	28
Olds .....	219	79	150	10	219	79	150	10
Peace River .....	216	124	103	11	215	122	103	10
Pincher Creek .....	204	89	121	6	204	89	121	6
Ponoka .....	210	129	93	12	209	129	92	12
Raymond .....	94	44	58	8	94	44	58	8
Redcliff .....	.....	55	.....	55	.....	55	.....	55
Red Deer .....	839	634	248	43	839	634	248	43
Redwater .....	.....	46	.....	46	.....	46	.....	46
Rocky Mountain House .....	181	97	91	7	179	96	90	7
St. Albert .....	.....	73	.....	73	.....	73	.....	73
St. Paul .....	257	108	169	20	257	108	169	20
Stettler .....	256	123	152	19	255	122	152	19
Stony Plain .....	1	38	1	38	1	38	1	38
Sylvan Lake .....	.....	29	.....	29	.....	29	.....	29
Taber .....	340	99	243	2	339	99	242	2
Three Hills .....	145	53	97	5	145	53	97	5
Vegreville .....	150	65	90	5	150	65	90	5
Vermilion .....	183	78	110	5	183	78	110	5
Vulcan .....	133	38	98	3	132	38	97	3
Wainwright .....	251	144	116	9	251	144	116	9
Westlock .....	273	58	221	6	272	58	220	6
Wetaskiwin .....	327	148	197	18	323	144	197	18

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TABLE 30: LIVE BIRTHS BY MONTH IN CANADA, 1959

	Total	January	February	March	April	May	June	July	August	September	October	November	December
Province of Alberta	38,080	3,040	2,774	3,261	3,274	3,354	3,329	3,361	3,169	3,279	3,242	2,944	3,053

TABLE 31: LIVE BIRTHS FOR CENSUS DIVISIONS BY TYPE OF ATTENDANCE, ALBERTA, 1959

CENSUS DIVISIONS	Total	Attended by			
		Physician	Nurse	Midwife	Unattended and Not Stated
<b>ALBERTA</b>	<b>38,080</b>	<b>37,469</b>	<b>100</b>	<b>227</b>	<b>195</b>
Division No. 1	988	976	.....	12	.....
Division No. 2	2,183	2,139	3	35	6
Division No. 3	917	885	.....	27	5
Division No. 4	412	403	.....	6	3
Division No. 5	953	888	52	3	10
Division No. 6	9,144	9,125	3	9	7
Division No. 7	1,113	1,108	.....	3	2
Division No. 8	2,097	2,083	.....	10	4
Division No. 9	433	411	15	7	1
Division No. 10	1,580	1,576	.....	2	1
Division No. 11	12,483	12,467	1	7	1
Division No. 12	1,647	1,552	34	30	31
Division No. 13	1,077	1,065	4	1	7
Division No. 14	580	570	2	2	6
Division No. 15	2,473	2,221	75	74	103

TABLE 32: LIVE BIRTHS IN INCORPORATED URBAN PLACES OF 1,000 POPULATION AND OVER, BY TYPE OF ATTENDANCE, ALBERTA, 1959

CITY, TOWN OR VILLAGE	Total	Attended by			
		Physician	Nurse	Midwife	Unattended and Not Stated
Athabasca .....	56	56	.....	.....	.....
Barrhead .....	58	58	.....	.....	.....
Beverly .....	462	461	.....	1	.....
Blairmore .....	35	35	.....	.....	.....
Bonnyville .....	65	63	.....	1	1
Bow Island .....	23	23	.....	.....	.....
Bowness .....	346	343	.....	.....	3
Brooks .....	82	82	.....	.....	.....
Calgary .....	7,259	7,257	.....	.....	2
Camrose .....	170	170	.....	.....	.....
Cardston .....	78	78	.....	.....	.....
Claresholm .....	51	51	.....	.....	.....
Coaldale .....	69	69	.....	.....	.....
Cold Lake .....	64	64	.....	.....	.....
Coleman .....	32	32	.....	.....	.....
Devon .....	33	33	.....	.....	.....
Didsbury .....	34	34	.....	.....	.....
Drayton Valley .....	205	205	.....	.....	.....
Drumheller .....	124	124	.....	.....	.....
Edmonton .....	8,604	8,601	.....	1	2
Edson .....	155	155	.....	.....	.....
Fairview .....	44	44	.....	.....	.....
Forest Lawn .....	270	270	.....	.....	.....
Fort Macleod .....	80	80	.....	.....	.....
Fort Saskatchewan .....	105	105	.....	.....	.....
Grande Prairie .....	304	304	.....	.....	.....
Hanna .....	87	86	.....	.....	1
High Prairie .....	83	82	.....	.....	1
High River .....	46	46	.....	.....	.....
Innisfail .....	67	67	.....	.....	.....
Jasper Place .....	1,099	1,099	.....	.....	.....
Lacombe .....	95	95	.....	.....	.....
Leduc .....	63	63	.....	.....	.....
Lethbridge .....	913	913	.....	.....	.....
Lloydminster .....	108	108	.....	.....	.....
Magrath .....	36	35	.....	1	.....
McLennan .....	47	47	.....	.....	.....
McMurray .....	30	27	3	.....	.....
Medicine Hat .....	602	602	.....	.....	.....
Nanton .....	29	29	.....	.....	.....
Olds .....	79	79	.....	.....	.....
Peace River .....	124	122	1	.....	1
Pincher Creek .....	89	89	.....	.....	.....
Ponoka .....	129	129	.....	.....	.....
Raymond .....	44	44	.....	.....	.....
Redcliff .....	55	55	.....	.....	.....
Red Deer .....	634	634	.....	.....	.....
Redwater .....	46	46	.....	.....	.....
Rocky Mountain House .....	97	97	.....	.....	.....
St. Albert .....	73	73	.....	.....	.....
St. Paul .....	108	108	.....	.....	.....
Stettler .....	123	123	.....	.....	.....
Stony Plain .....	38	38	.....	.....	.....
Sylvan Lake .....	29	29	.....	.....	.....
Taber .....	99	99	.....	.....	.....
Three Hills .....	53	52	1	.....	.....
Vegreville .....	65	65	.....	.....	.....
Vermilion .....	78	78	.....	.....	.....
Vulcan .....	38	38	.....	.....	.....
Wainwright .....	144	144	.....	.....	.....
Westlock .....	58	58	.....	.....	.....
Wetaskiwin .....	148	148	.....	.....	.....



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TABLE 33: LIVE BIRTHS BY AGES OF PARENTS, ALBERTA, 1959

Age of Mother (years)	AGE OF FATHER											Total born to married mothers	Born to un-married mothers	Born to all mothers
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over			
12 years													1	1
13 years														
14 years	1	3										4	12	16
15 years	9	13	3									25	46	71
16 years	45	89	12	2								148	106	254
17 years	83	247	71	16	7							425	170	595
18 years	82	602	184	26	9	1						904	223	1,127
19 years	68	922	423	70	15	1	1					1,501	207	1,708
20 years	15	1,019	605	115	22	2	1					1,779	214	1,993
21 years	11	996	950	211	34	7	2	1	1			2,213	147	2,360
22 years	3	851	1,129	272	36	13	5					1,2,310	133	2,443
23 years	4	647	1,369	396	61	14	1	2				2,496	116	2,612
24 years	2	386	1,371	487	88	18	5	3	1			2,361	94	2,455
25 years	1	223	1,328	574	121	28	7	2				1,2,285	86	2,371
26 years		98	1,199	678	165	22	9	6			1	1,2,179	101	2,280
27 years		57	941	776	203	36	13	4	1	1		1,2,035	56	2,091
28 years		39	747	891	272	53	10	6	2	2		2,2,024	44	2,068
29 years		22	489	879	356	81	22	5	1	1	1	1,857	61	1,918
30 years		13	295	838	384	98	29	11	2		1	1,672	42	1,714
31 years		7	171	698	410	121	29	6	2	3	1	1,448	26	1,474
32 years		12	99	546	442	143	42	12	4	3		1,303	17	1,320
33 years		6	64	424	486	192	52	15	3	1	3	1,247	22	1,269
34 years		4	43	301	431	209	59	18	4	1		1,070	36	1,106
35 years		2	23	171	421	207	72	24	5	1		926	33	959
36 years		1	13	104	380	188	65	24	9	1		785	25	810
37 years		2	12	74	312	201	95	16	9	2	3	726	24	750
38 years			8	50	204	234	94	30	13		3	636	26	662
39 years			5	28	127	171	98	31	14	1	4	479	15	494
40 years			2	13	84	161	78	27	4	1	1	371	14	385
41 years			1	7	38	88	59	32	6	3	2	236	12	248
42 years				5	22	80	57	29	8	5		206	8	214
43 years		1		2	2	43	43	25	7	2		126	3	129
44 years			1			4	30	7	6		1	78	5	83
45 years					2	8	14	15	5	3	2	49		49
46 years						1	8	4	4			17		17
47 years						2	5	3	2			12	1	13
48 years						1	2	2	2			7		7
49 years												1		1
50 and over		1												
Not stated			1		1	1						8	11	13
Total Fathers	324	6,263	11,560	8,656	5,139	2,454	1,007	360	115	31	21	35,952	2,128	38,080

TABLE 34 — LIVE BIRTHS BY AGE OF MOTHER AND BIRTH ORDER, ALBERTA, 1959

Age of Mother	ORDER OF BIRTH OF CHILD																										
	Total																										
	Last	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th
12 years	1																										
13 years	16																										
14 years	71	3																									
15 years	241	13																									
16 years	595	519																									
17 years	1,127	864	28	3																							
18 years	1,708	1,114	83	9																							
19 years	1,993	1,063	702	196	11	1																					
20 years	2,360	1,057	877	345	69	2																					
21 years	2,612	820	964	439	161	25	2																				
22 years	2,455	815	556	210	65	12	4																				
23 years	2,612	820	945	353	298	95	31	7	2																		
24 years	2,371	525	727	326	131	46	17	2																			
25 years	2,280	418	628	350	173	57	26	9	5																		
26 years	2,091	318	530	364	179	80	55	6	7																		
27 years	2,068	285	517	349	179	99	52	21	6																		
28 years	1,718	262	384	470	206	109	64	28	11																		
29 years	1,718	262	384	470	206	109	64	28	11																		
30 years	1,474	130	301	321	223	113	57	34	5	4																	
31 years	1,320	106	207	292	209	104	57	34	5	4	7																
32 years	1,269	106	207	292	209	104	57	34	5	4	7																
33 years	1,106	77	200	266	160	83	71	43	23	16	15	3															
34 years	959	56	116	188	154	130	63	45	26	16	16	2															
35 years	810	41	84	149	146	103	72	40	22	11	8	8															
36 years	750	41	61	111	126	93	59	35	26	15	12	9															
37 years	662	35	61	108	120	75	41	33	21	15	15	8															
38 years	494	23	50	61	85	58	34	30	22	19	14	15	3														
39 years	385	14	22	60	56	64	42	30	17	21	13	15	4														
40 years	248	10	20	39	42	23	16	15	14	8	8	13	2														
41 years	214	11	13	21	29	24	23	24	15	20	9	7	4														
42 years	129	2	5	15	15	21	16	13	10	10	4	4	3														
43 years	83	2	8	7	14	10	8	5	6	4	4	3	4														
44 years	49	6	3	7	9	6	6	5	4	4	4	3	4														
45 years	17	1	1	2	1	1	2	3	1	1	1	3	2														
46 years	13			1	1	1	1	1	1	1	1	2	1														
47 years	7			1	1	1	1	1	1	1	1	1	1														
48 years	1																										
49 years																											
50 and over																											
Not stated	13		1																								
Total	38,080	10,007	9,399	4,836	2,732	1,508	885	522	320	200	124	107	40	29	18	17			2	2							9

Not stated

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TABLE 35: MULTIPLE BIRTHS BY AGE OF MOTHER, ALBERTA, 1959

[illegible]





TABLE 38: MARRIAGES BY MONTH OF MARRIAGE, 1959  
ALBERTA

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Total .....	10,402
January .....	457
February .....	523
March .....	516
April .....	738
May .....	922
June .....	1,241
July .....	1,103
August .....	1,208
September .....	927
October .....	1,062
November .....	930
December .....	775

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TABLE 39 — MARRIAGES—AGE OF BRIDE BY AGE OF GROOM, ALBERTA, 1959

[illegible]

TABLE 40—MARRIAGES, MARITAL STATUS OF BRIDEGROOM BY STATUS OF BRIDE,  
1959, ALBERTA

	Total Marriages	MARRIAGES BETWEEN								
		Bachelors and			Widowers and			Divorced Men and		
		Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women
Alberta .....	10,402	8,860	222	394	103	199	61	349	79	135

TABLE 41: MARRIAGES, MARITAL STATUS BY AGE OF BRIDEGROOM, 1959, ALBERTA

AGES	MARITAL STATUS			
	Total	Bachelors	Widowers	Divorced Men
Under 20 years .....	671	671	.....	.....
20 - 24 .....	4,803	4,772	3	28
25 - 29 .....	2,674	2,550	16	108
30 - 34 .....	996	850	15	131
35 - 39 .....	453	316	31	106
40 - 44 .....	221	120	25	76
45 - 49 .....	162	89	33	40
50 - 54 .....	108	45	31	32
55 - 59 .....	103	25	58	20
60 - 64 .....	71	17	45	9
65 - 69 .....	57	7	41	9
70 - 74 .....	58	10	44	4
75 + .....	25	4	21	.....
Not stated .....	.....	.....	.....	.....
Total .....	10,402	9,476	363	563

TABLE 42: MARRIAGES, MARITAL STATUS BY AGE OF BRIDE, 1959, ALBERTA

AGES	MARITAL STATUS			
	Total	Spinsters	Widows	Divorced Women
Under 20 .....	3,712	3,706	1	5
20 - 24 .....	3,940	3,832	19	89
25 - 29 .....	1,252	1,073	33	146
30 - 34 .....	568	410	45	113
35 - 39 .....	314	146	66	102
40 - 44 .....	196	71	61	64
45 - 49 .....	140	43	59	38
50 - 54 .....	90	10	61	19
55 - 59 .....	83	13	61	9
60 - 64 .....	48	6	39	3
65 - 69 .....	26	.....	26	.....
70 - 74 .....	21	1	18	2
75 + .....	12	1	11	.....
Not stated .....	.....	.....	.....	.....
Total .....	10,402	9,312	500	590

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TABLE 43 — MARRIAGES, BIRTHPLACE OF GROOM BY BIRTHPLACE OF BRIDE, ALBERTA, 1959

BIRTHPLACE OF GROOM	BIRTHPLACE OF BRIDE													
	CANADA													
	Total Grooms	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Province Unspecified
Canada .....	8,164	9	11	54	37	56	201	209	1038	5824	213	1	12	212
Newfoundland .....	25	5	2	1	1	1	1	1	1	1	1	1	1	1
Prince Edward Island .....	19	5	2	1	1	1	1	1	1	1	1	1	1	1
Nova Scotia .....	99	1	2	12	1	1	5	1	5	9	9	1	1	1
New Brunswick .....	56	1	1	2	8	2	3	1	7	26	3	2	2	3
Quebec .....	107	1	1	2	11	11	5	3	12	65	2	4	4	4
Ontario .....	386	1	1	5	6	6	32	15	59	204	15	9	24	24
Manitoba .....	337	1	1	3	1	1	17	37	50	235	32	1	10	10
Saskatchewan .....	391	1	1	3	1	5	24	39	318	731	116	1	10	40
Alberta .....	1,243	1	4	19	15	22	104	100	526	4330	116	1	10	118
British Columbia .....	5,546	1	1	4	2	3	11	11	45	152	33	7	7	134
Yukon .....	287	2	1	1	1	1	1	1	1	2	1	1	1	1
Northwest Territories .....	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Province Unspecified .....	434	1	2	4	6	5	26	9	55	169	11	1	1	113
British Isles and Possessions .....	290	1	1	7	1	4	13	16	63	381	22	1	2	50
Europe .....	1,420	1	1	7	1	4	13	16	63	381	22	1	2	50
Asia .....	125	1	1	1	1	1	1	1	1	1	1	1	1	1
United States .....	247	1	1	1	1	3	8	9	25	119	9	1	1	13
Other .....	11	1	1	1	1	1	1	1	1	1	1	1	1	1
Unspecified .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total .....	10,402	11	14	66	43	68	252	243	1185	6487	254	2	15	388

TABLE 44 — MARRIAGES—RELIGIOUS DENOMINATION OF BRIDE, ALBERTA, 1959

RELIGIOUS DENOMINATION OF GROOM	RELIGIOUS DENOMINATION OF BRIDE																																											
	Total Grooms	Adventists	Anglicans	Apostolic bodies	Baptists	Brethren Including United	Christadelphians	Christians	Christian Missionary Alliance	Christian Scientists	Churches of Christ (Disciples)	Church of God	Doukhobors	Eastern Orthodox Churches	Evangelicals	Gospel bodies	Greek Catholic Churches	Holliness Movement	International Bible Students	Jewish	Lutherans	Mennonites	Methodists	Moravian Church	Mormons	Non-denominational	Pentecostal Assemblies	Plymouth Brethren	Presbyterians	Reform Churches (Christian)	Roman Catholics	Salvation Army	Society of Friends	Spiritualists	Swedenborgians	Unitarians	United Church of Canada	Other religions	Non-religious denominations	Unspecified or unknown				
11 Adventists	41	23	1		26						4	1		14			12				3		3			10	4			1	3	6							6					
10 Anglicans	998	1361																			58									37	3	140	2	1					1	295	1			
51 Apostolic bodies	8		2																		25									13	2									84	1			
20 Baptists	334	2	29		115		1				1			6	2	1	4		3		25	3	1			6	5																	
12 Brethren including United	32		3	1	2	12			1											1																					9			
52 Christadelphians	1																																								1			
13 Christians	18							10			1						1																								1			
53 Christian Missionary Alliance	57		1		3	1			36			1			1					2	2																				8	1		
14 Christian Scientists - (Disciples)	21		2								10											6																			5			
54 Church of God	41	1	1		2						22																														1			
94 Doukhobors	2																																									1		
40 Eastern Orthodox Churches	396	22	3	1									188		1	32					34				1																56			
17 Evangelicals	54	4	5											26							2	3																			9			
56 Gospel bodies	19	2											1		11						1																				1			
30 Greek Catholic Churches	356		7		3				1				21				179				10				1	4	2															33		
57 Holiness Movement																																											1	
18 International Bible Students	40		2								1										2																					3		
96 Jewish	44																				30	1																				2		
10 Lutheran	1,075	3	72		34	3		2		2	4	2	15	1	1	2	6			1	476	5	2		14	8																	216	3

TABLE 44 — MARRIAGES—RELIGIOUS DENOMINATION OF GROOM BY RELIGIOUS DENOMINATION OF BRIDE, ALBERTA, 1959 (Continued)

[illegible]

TABLE 45: STILLBIRTHS BY SEX AND PERIOD OF GESTATION, 1959, ALBERTA

PERIOD OF GESTATION	Male	Female
28 weeks .....	11	10
29 weeks .....	3	2
30 weeks .....	9	9
31 weeks .....	2	8
32 weeks .....	7	5
33 weeks .....	3	9
34 weeks .....	13	10
35 weeks .....	11	6
36 weeks .....	26	18
37 weeks .....	12	13
38 weeks .....	19	20
39 weeks .....	14	12
40 weeks .....	29	42
41 weeks .....	7	8
42 weeks .....	15	11
43 weeks .....	3	3
44 weeks .....	.....	.....
45 weeks .....	.....	.....
46 weeks .....	.....	.....
47 weeks .....	.....	.....
48 weeks .....	.....	.....
Not stated .....	4	2
Total .....	188	188

TABLE 46: RATIO OF MALE TO FEMALE BIRTHS, AND OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1905 .....	1,059	3.13	1932 .....	1,052	3.08
1906 .....	1,094	2.07	1933 .....	1,053	3.01
1907 .....	1,075	2.96	1934 .....	1,032	3.04
1908 .....	1,077	2.73	1935 .....	1,055	2.81
1909 .....	1,086	2.59	1936 .....	1,049	2.57
1910 .....	1,065	2.69	1937 .....	1,019	2.38
1911 .....	1,103	2.43	1938 .....	1,046	2.70
1912 .....	1,084	2.43	1939 .....	1,046	2.85
1913 .....	1,053	2.67	1940 .....	1,033	2.79
1914 .....	1,081	3.30	1941 .....	1,054	2.71
1915 .....	1,000	3.74	1942 .....	1,058	3.02
1916 .....	1,063	3.29	1943 .....	1,041	2.95
1917 .....	1,061	3.25	1944 .....	1,060	3.06
1918 .....	1,069	1.88	1945 .....	1,061	3.08
1919 .....	1,074	2.56	1946 .....	1,036	3.36
1920 .....	1,055	2.92	1947 .....	1,061	3.76
1921 .....	1,055	3.32	1948 .....	1,049	3.44
1922 .....	1,034	3.06	1949 .....	1,051	3.52
1923 .....	1,072	3.13	1950 .....	1,052	3.74
1924 .....	1,036	2.97	1951 .....	1,039	3.76
1925 .....	1,036	2.97	1952 .....	1,058	3.95
1926 .....	1,053	2.80	1953 .....	1,063	4.10
1927 .....	1,065	2.94	1954 .....	1,073	4.60
1928 .....	1,064	2.75	1955 .....	1,066	4.31
1929 .....	1,042	2.71	1956 .....	1,060	4.48
1930 .....	1,027	3.21	1957 .....	1,055	4.32
1931 .....	1,075	3.25	1958 .....	1,064	4.47
			1959 .....	1,056	4.49



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TABLE 47: DIVORCES AND NULLITIES, BY JUDICIAL DISTRICTS,  
FOR THE YEAR 1959, ALBERTA

JUDICIAL DISTRICTS	DIVORCES			NULLITIES		
	Number of Divorces	Granted to Husband	Granted to Wife	Number of Nullities	Granted to Husband	Granted to Wife
Edmonton .....	372	150	222	8	3	5
Calgary .....	353	135	218	8	3	5
Lethbridge .....	36	14	22	....	....	....
Medicine Hat .....	27	14	13	....	....	....
Peace River .....	....	....	....	....	....	....
Hanna .....	2	....	2	....	....	....
Drumheller .....	2	1	1	....	....	....
Fort Macleod .....	2	1	1	....	....	....
Wetaskiwin .....	5	2	3	....	....	....
Vegreville .....	1	1	....	....	....	....
Red Deer .....	23	8	15	....	....	....
Grande Prairie .....	13	11	2	....	....	....
Total .....	836	337	499	16	6	10

## DIVORCES AND NULLITIES IN ALBERTA SINCE THE PASSING OF THE ACT

YEAR	Granted to Husband	Granted to Wife	Total
1919 .....	3	3	6
1920 .....	74	26	100
1921 .....	53	37	90
1922 .....	80	49	129
1923 .....	57	32	89
1924 .....	66	53	119
1925 .....	59	42	101
1926 .....	79	75	154
1927 .....	83	66	149
1928 .....	91	84	175
1929 .....	77	71	148
1930 .....	64	87	151
1931 .....	69	87	156
1932 .....	68	81	149
1933 .....	56	79	135
1934 .....	62	106	168
1935 .....	74	135	209
1936 .....	74	135	209
1937 .....	102	139	241
1938 .....	105	162	267
1939 .....	104	163	267
1940 .....	119	154	273
1941 .....	135	176	311
1942 .....	179	201	380
1943 .....	190	223	413
1944 .....	245	243	488
1945 .....	302	273	575
1946 .....	494	480	974
1947 .....	404	478	882
1948 .....	302	357	659
1949 .....	262	332	594
1950 .....	249	311	550
1951 .....	255	334	589
1952 .....	239	391	630
1953 .....	228	375	603
1954 .....	224	384	608
1955 .....	233	394	627
1956 .....	278	410	688
1957 .....	317	409	726
1958 .....	295	457	752
1959 .....	343	509	852

TABLE 48 — POPULATION, BIRTHS, MARRIAGES, DEATHS AND RATES FOR THE YEARS 1905 - 1959

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Year	Population	Number of Births	Birth Rate	Number of Marriages	Marriage Rate	Number of Deaths	Death Rate	Infantile Death Rate per 1,000 Births	Puerperal Death Rate per 1,000 Births	Natural Increase
1905	185,000	421	20.41	187	6.77	114	7.35	.....	.....	13.04
1906	190,000	3,003	20.05	1,907	8.08	1,091	6.68	90.00	6.33	13.36
1907	236,000	4,732	20.05	1,907	7.63	1,578	8.22	100.27	6.02	14.22
1908	268,000	5,972	22.29	2,084	7.92	2,188	8.81	126.57	.....	14.07
1909	301,000	6,897	22.91	2,384	7.92	2,662	10.49	.....	.....	14.00
1910	336,000	8,321	24.49	3,086	9.18	3,526	10.49	129.49	8.63	14.00
1911	374,000	8,813	23.56	3,630	9.70	3,618	9.67	134.46	9.75	13.88
1912	400,000	10,284	25.71	4,429	11.07	4,232	10.58	124.75	8.26	15.13
1913	429,000	11,871	28.47	5,053	12.12	4,432	10.63	120.47	7.07	17.84
1914	459,000	13,685	30.75	4,623	10.39	4,417	9.32	100.54	6.13	21.43
1915	480,000	13,452	28.90	4,202	9.06	3,588	7.73	87.9	5.79	21.26
1916	496,000	13,331	27.87	4,230	8.53	4,058	8.18	90.5	7.20	18.69
1917	508,000	13,576	27.01	4,270	8.54	4,047	8.09	87.30	6.48	18.32
1918	522,000	14,890	25.72	4,048	6.98	7,924	13.86	107.10	5.51	11.86
1919	544,000	14,130	23.95	4,718	7.90	9,333	13.84	130.0	6.14	17.87
1920	565,000	16,565	26.72	5,110	8.24	9,507	13.35	139.76	9.38	17.57
1921	588,000	16,414	27.89	4,661	6.22	4,915	8.35	85.65	7.24	19.50
1922	593,000	15,163	23.55	4,177	6.99	5,281	8.82	91.93	6.63	17.83
1923	602,000	14,583	23.55	4,160	6.99	4,843	8.06	90.54	5.50	18.75
1924	608,000	15,013	25.03	4,363	7.50	4,907	8.30	82.40	6.18	16.42
1925	623,000	14,897	23.79	4,498	7.27	4,717	7.86	72.90	5.76	16.16
1926	658,000	15,692	24.03	4,707	7.40	5,156	8.49	81.63	5.82	15.31
1927	684,000	16,924	24.79	5,776	7.58	5,059	8.16	74.51	6.38	15.87
1928	708,000	17,252	26.19	6,004	9.12	5,699	9.00	76.50	6.75	15.79
1929	732,000	17,649	26.74	5,334	9.29	6,239	9.65	77.40	7.26	16.54
1930	740,000	16,990	23.57	5,054	8.08	5,396	8.33	63.57	6.46	18.41
1931	748,000	16,123	22.96	5,142	7.02	5,302	7.24	69.38	5.04	16.32
1932	756,000	16,236	21.33	5,389	6.83	5,521	7.46	58.68	3.76	15.50
1933	770,000	16,183	21.10	6,053	7.10	5,346	7.07	59.90	4.43	14.24
1934	772,782	15,786	21.0	6,010	7.87	5,337	6.93	54.89	4.99	14.01
1935	778,000	15,903	20.4	6,020	7.7	5,729	7.3	57.8	5.6	14.0
1936	783,000	15,891	20.4	6,345	7.8	6,147	8.0	63.0	5.6	12.4
1937	789,000	16,359	20.9	6,838	8.2	6,247	8.0	63.0	4.8	12.4
1938	796,169	17,308	21.8	7,838	9.9	5,871	7.5	51.0	4.3	13.6
1939	805,000	18,317	22.7	8,782	11.0	5,785	7.3	46.0	3.5	14.1
1940	818,000	19,373	23.7	9,034	10.7	6,203	8.0	51.0	3.9	13.7
1941	826,000	19,939	24.1	7,299	8.9	6,385	7.5	38.0	2.3	15.2
1942	830,330	24,631	27.6	9,478	11.2	6,091	7.6	42.0	0.5	22.4
1943	846,000	24,075	28.5	8,844	10.5	6,524	8.2	46.0	2.7	16.1
1944	871,000	24,935	28.7	8,797	10.7	6,454	7.8	43.0	1.6	16.0
1945	885,000	25,625	28.7	9,037	10.4	6,601	8.2	42.5	2.4	16.2
1946	899,501	27,003	28.7	9,294	10.4	6,543	8.0	37.0	1.4	19.3
1947	900,000	28,105	30.0	9,305	9.9	6,987	8.0	39.0	0.9	22.0
1948	1,002,000	31,376	31.3	9,514	9.6	7,083	8.2	33.0	1.0	20.2
1949	1,039,000	33,353	32.1	9,360	9.1	7,656	7.7	32.0	0.7	20.5
1950	1,083,000	34,951	32.2	9,965	9.2	7,520	7.6	30.0	0.7	23.7
1951	1,123,116	36,719	31.1	10,117	8.7	7,956	7.2	26.0	0.3	22.3
1952	1,160,000	36,542	30.8	10,186	8.5	8,255	6.9	25.0	0.4	23.1
1953	1,201,000	38,080	30.6	10,402	8.4	8,237	7.1	27.0	0.3	23.7
1954	1,243,000	38,080	30.6	10,402	8.4	8,481	6.8	24.0	0.4	23.8













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